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Burden of Proof in Environmental Disputes in the WTO: Legal Aspects[°]

by

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1 January 2009

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Abstract

This paper discusses allocation of burden of proof in environmental disputes in the WTO system. Besides laying down the natural principles that (i) the *complainant* carries the burden to (ii) make a *prima facie* case that its claim holds, WTO adjudicating bodies have said little of more general nature. The paper therefore examines the case law of relevance to environmental policies, to establish the rules concerning burden of proof that are likely to be applied in such disputes. Evaluating this case law, the paper makes two observations: First, in cases submitted under the GATTWTO, adjudicating bodies have committed errors regarding the required amount of evidence (the burden of persuasion); and second, such errors, as well as errors concerning the determination of the party to carry the burden of providing this evidence (the burden of production), have been committed in disputes submitted under the TBT/SPS Agreements. These errors largely seem attributable to the general absence of methodology regarding the interpretation of some key substantive provisions featuring in the three Agreements.

JEL Classification: Q56, F13

Key Words: Burden of Proof, Burden of Production, Burden of Persuasion, WTO, Environment

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1 Introduction

This paper seeks to shed light on the allocation of burden of proof in environmental disputes that are submitted for adjudication to the World Trade Organization (WTO).

¹The most important constraints on WTO Members when regulating to protect environment are the non-discrimination provisions in various agreements coming under the aegis of the WTO, namely, the GATT (General Agreement on Tariffs and Trade), TBT (Technical Barriers to Trade), SPS (Sanitary and Phyto-sanitary Measures).² The allocation of the burden of proof in disputes concerning these provisions, as in the WTO in general, was not decided at the legislative level; it is the WTO judge that has decided it.³ This allocation can have an important bearing on the eventual outcome of disputes, which often will be influenced by factors such as who carries the burden to produce evidence (*burden of production*), and how much proof is necessary to shift the burden of production to the other party (*burden of persuasion*).

In this paper we will argue that case-law has been problematic with respect to the allocation of the burden of proof. We will try to demonstrate that GATT-panels have made errors when it comes to deciding on the burden of persuasion, whereas TBT- and SPS-panels have inappropriately allocated the burden of production, as well as the burden of persuasion. To make this point we will review *all* GATT/WTO disputes where the consistency of a domestic instrument with the WTO rules has been

¹ There is paucity in the literature regarding comprehensive analysis of WTO practice in this respect. Grando (2009) is highly exceptional in this context.

² An environmental dispute can also occur in the GATS-context. We have yet to see one submitted to the WTO. In this paper however, we limit our research in the field of trade in goods, which comprises the totality of environmental disputes so far.

³ Mavroidis (2008) sides with the view that the WTO judge has implied powers to do so stemming from Art. 11 DSU (the obligation to perform an objective assessment of the matter before it).

challenged, since *all* domestic instruments – environmental regulation included – must at least potentially obey the *same* legal discipline.⁴

The rest of the paper is divided as follows: in Section 2 we will briefly discuss the objectives of the WTO dispute settlement (DS): the allocation of the burden of proof is a means towards an ends, and an understanding of the ends, that is, the objectives of the WTO dispute settlement system, is required to discuss the means. Section 3 examines the GATT-cases, and Section 4 the TBT- and SPS-cases. Section 5 concludes.

2 The Allocation of Burden of Proof in Light of the Objectives of WTO DS

The WTO agreement is a self-enforcing contract: there is no room for *ex officio* complaints, WTO Members being the only entities that can act as complainants/defendants; a natural consequence of this feature is that WTO Members are the ‘masters’ of the disputes, and WTO adjudicating bodies can only rule on claims as presented to them. This is the *non ultra petita* maxim, according to which courts can only rule on claims presented to them by the parties to a dispute: in its report on *Mexico – Corn Syrup (Article 21.5 – US)* the Appellate Body (AB) incorporated this maxim in the WTO legal order (§ 36):

... as a matter of due process, and the proper exercise of the judicial function, panels are required to address issues that are put before them by the parties to a dispute.

⁴ There are of course differences between Arts. III and XX GATT, as well as between GATT on the one hand and TBT and SPS on the other. Irrespective however, whether a dispute concerns public health, environment, or another domestic instrument, it will be submitted to the same legal discipline under the GATT, or the TBT (if applicable), or the SPS (if applicable).

By the same token, the AB in its report on *US – Certain EC Products* reversed panel's findings on issues which had not been put properly before it: in the case, the complainant had not presented any claims under Art. 23.2(a) of the Understanding on Dispute Settlement (DSU),⁵ and this omission notwithstanding, the panel pronounced on the consistency of the actions of the respondent with the mentioned legal basis. The AB argued that a panel cannot make claims for either party. The AB subsequently [*EC – Hormones (US)*] explained that panels should be free to develop their own reasoning, independently of the arguments advanced by the parties but within the ambit of the claims submitted to them (§ 156):

... Panels are inhibited from addressing legal claims falling outside their terms of reference. However, nothing in the DSU limits the faculty of a panel freely to use arguments submitted by any of the parties – or to develop its own legal reasoning – to support its own findings and conclusions on the matter under its consideration. A panel might well be unable to carry out an objective assessment of the matter, as mandated by Article 11 of the DSU, if in its reasoning it had to restrict itself solely to arguments presented by the parties to the dispute. Given that in this particular case both complainants claimed that the EC measures were inconsistent with Article 5.5 of the *SPS Agreement*, we conclude that the Panel did not make any legal finding beyond those requested by the parties. [italics in the original].

Consequently, the *non ultra petita* maxim covers claims only, and not arguments in support of claims.

WTO adjudicating bodies have, on the other hand, important investigating authority (Art. 13 DSU): they are free to ask any questions they deem appropriate to the parties

⁵ This provision bans any unilateral qualification that an illegality has occurred. Such pronouncements are the exclusive privilege of WTO adjudicating bodies.

to the dispute, and can further have recourse to outside expertise in an effort to illuminate their understanding of the dispute.⁶

In a nutshell, panels have substantial investigating powers that they can use in order to decide on the validity of the claims presented to them by the parties to a dispute. The purpose of the WTO dispute settlement system is not the 'discovery of the truth', but the response to the question 'is the complainant's claim valid under the applicable laws'? It is in this context, that we will be discussing the allocation of burden of proof.

3 The BoP in GATT Disputes

We begin by examining the BoP in GATT disputes.

3.1 The Law

Any domestic instrument, including those protecting the environment, must respect the discipline of National Treatment (NT) embodied in Art. III GATT, which essentially calls for non-discriminatory application of all measures adopted at the national level.⁷ Art. III GATT distinguishes between discrimination through fiscal

⁶ The term investigating authority is often referred to as discovery powers in WTO parlance, see Palmeter and Mavroidis (2004).

⁷ A WTO Member might choose to use a trade instrument instead, and impose an import quota on all imports aiming at protecting its market from environmental damage, without imposing a similar requirement on domestic products. According to standard case-law, such measures will violate Art. XI GATT, and the discussion will soon to move to Art. XX GATT, since all the complainant will have to show is that a quota is in place. The regulator will then be asked to demonstrate, *inter alia*, that its measures are non-discriminatory, otherwise it cannot satisfy the requirements of the chapeau of Art. XX GATT. So, no matter which road has been chosen (domestic, or trade instrument), what matters at the end of the day is that the environmental measure is non-discriminatory. Note also the *Interpretative Note ad Art. III GATT* which makes it clear that a domestic measure enforced at the border should still be regarded as a domestic measure coming under the disciplines of Art. III GATT. In this vein, a sales ban on environment unfriendly material can legitimately be enforced at the border, and stop imports of

measures (e.g., an environmental tax), and non-fiscal measures (e.g., a sales ban on environment-unfriendly (EUF) products).

The disciplines on fiscal measures are included in Art. III.2 GATT, which distinguishes between *like-*, and *directly competitive or substitutable* products (DCS).⁸ Art III.2 GATT, first sentence, includes the obligations that WTO Members incur when they apply fiscal measures on like products:

The products of the territory of any contracting party imported into the territory of any other contracting party shall not be subject, directly or indirectly, to internal taxes or other internal charges of any kind in excess of those applied, directly or indirectly, to like domestic products.

Art. III.2 GATT, second sentence, does the same with respect to DCS products:

Moreover, no contracting party shall otherwise apply internal taxes or other internal charges to imported or domestic products in a manner contrary to the principles set forth in paragraph 1.

Art. III.1 GATT, to which it refers, reads:

The Members recognize that internal taxes and other internal charges, and laws, regulations and requirements affecting the internal sale, offering for sale, purchase, transportation, distribution or use of products, and internal quantitative regulations requiring the mixture, processing or use of products in specified amounts or proportions,

similar goods; its consistency with the GATT will depend on whether the sales ban at hand observes the discipline included in Art. III GATT. An *Interpretative Note* is part of the treaty (GATT), that is, it reflects a contractual obligation that WTO Members have agreed to respect.

⁸ We are, of course, always looking for a pair of two like-, or DCS products, one domestic, and one foreign.

should not be applied to imported or domestic products so as to afford protection to domestic production.

Finally, Art III.2 GATT, second sentence, has an *Interpretative Note* that reads:

A tax conforming to the requirements of the first sentence of paragraph 2 would be considered to be inconsistent with the provisions of the second sentence only in cases where competition was involved between, on the one hand, the taxed product and, on the other hand, a directly competitive or substitutable product which was not similarly taxed.

A complainant, who is challenging the consistency of an environmental measure with Art. III.2 GATT, can, in principle, choose between two routes. One is to argue that:

- (i) the domestic and the foreign products are *like*; and
- (ii) the latter is taxed *in excess* of the former.

The other is to claim that:

- (iii) the two products are *directly competitive or substitutable* (DCS);
- (iv) the two products are *not similarly taxed*; and
- (v) the dissimilar taxation operates *so as to afford protection to domestic production* (SATAP).⁹

Central to the scope of the NT provision is thus the adjudicating bodies' interpretation of the italicized terms in (i)-(v).

⁹ It could be argued that a textual reading of the *Interpretative Note ad Article III* suggests that points (iv) and (v) are one and the same. The Appellate Body (AB) has distinguished between the two elements in the sense that, in its view, dissimilar taxation is a necessary but not sufficient condition for protection to have been afforded (*Japan – Alcoholic Beverages II*).

Art. III.4 GATT, which deals with discrimination through non-fiscal measures, reproduces essentially the same idea, applying however, in modified terminology.

The products of the territory of any contracting party imported into the territory of any other contracting party shall be accorded treatment no less favourable than that accorded to like products of national origin in respect of all laws, regulations and requirements affecting their internal sale, offering for sale, purchase, transportation, distribution or use....

The complainant would thus have to argue that the imported product is subjected to *less favourable treatment* than that applicable to domestic *like* products: the interpretation of the italicized terms holds the key to the discipline imposed through this provision.¹⁰

Assuming that a violation of Art. III GATT has been demonstrated, the regulating WTO Member can still exonerate itself from liability, if it can successfully invoke one of the justifying grounds included in Art. XX GATT. This provision is entitled “*General Exceptions*”, and has been acknowledged by the AB as an exception to measures coming the purview of both Art. III, and Art. XI GATT.¹¹ Art. XX GATT contains an exhaustive list of grounds justifying deviations from all GATT provisions. The following parts of Art. XX have been acknowledged in GATT/WTO case-law as relevant for justifying measures aimed at protecting the environment:

¹⁰ Environmental measures can also come under Art. II GATT, although it will have to be at the 8 digit level of tariff classifications since, typically, classifications up to the 6 level do not make room for environmental concerns: a WTO Member might thus, provide favourable customs treatment to asbestos free-, while penalizing asbestos containing-construction material. No dispute has been submitted in this context so far and, as a result, any discussion regarding the allocation of burden of proof in similar cases would be highly speculative.

¹¹ For an example of the former, see the AB report on *Korea – Various Measures on Beef*; for an example of the latter, see the AB report on *US – Shrimp*.

Subject to the requirement that such measures are not applied in a manner which would constitute a means of *arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade*, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures:

(b) *necessary to protect human, animal or plant life or health;*

(g) *relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption.*

Once again, the italicized terms hold the key to understanding how an otherwise GATT-inconsistent measure can be justified because it is meant to protect environment.

3.2 Burden of Production in the GATT

In public international law (PIL) in general, the maxim *actori incumbit probatio* requests from the party making a claim to verify its truthfulness. This maxim was introduced into the WTO legal order by the AB in its report on *US - Wool Shirts and Blouses*. It has been cited in practically all disputes ever since (§ 14):

It is a generally accepted canon of evidence in civil law, common law, and, in fact, most jurisdictions, that the burden of proof rests upon the party, whether complaining or defending, who asserts the affirmative of a particular claim or defence. If that party adduces sufficient evidence to raise a presumption that what is claimed is true, the burden then shifts to the other party, who will fail unless it adduces sufficient evidence to rebut the presumption.

If the law distinguishes between a rule and an exception, then legal orders usually follow the PIL maxim *quicumque exceptio invokat ejudem probare debet*: the party invoking the exception carries the burden of proof to demonstrate compliance with the conditions reflected in the exception. The *India – Autos* dispute serves as an illustration of a case where this maxim has been applied. In this case, India invoked Art. XVIII GATT to justify on balance-of-payments (BOP) grounds a quantitative restriction. India was responding to a claim by the US that its measures were in violation of Art. XI GATT, a claim which in the eyes of the panel, the US had proved. Seeing Art. XVIII GATT as an exception to Art. XI GATT, the panel put the burden of justifying the violation of Art. XI GATT on India (§§ 7.285 – 7.292).

It follows that the party claiming that a violation of Arts. III or XI GATT has occurred carries the burden to demonstrate that this has indeed been the case. Since Art. XX GATT is an exception to the obligations assumed under the GATT, it is the defendant who will carry the proof, assuming, of course, that the complainant has absolved its own when claiming that a GATT provision (Arts. III, XI) has been violated as a result of a measure adopted by the defendant.¹² The AB, citing prior case law to this effect (*US – Gasoline*, pp. 22-23; *US – Wool Shirts and Blouses*, pp. 15-16; *US – FSC (Article 21.5 – EC)*, § 133) has confirmed this view in its report on *US – Gambling* (§ 309):

It is well-established that a responding party invoking an affirmative defence bears the burden of demonstrating that its measure, found to be WTO-inconsistent, satisfies the requirements of the invoked defence.

¹² As we will see in more detail *infra*, the burden of production shifts back and forth between complainant and defendant in the context of Art. XX GATT, when recourse to Art. XX(b) GATT has been made, depending on whether the burden of persuasion has been respected.

3.3 *Burden of Persuasion in the GATT*

3.3.1 Making a *Prima Facie* Case

Recall that, by virtue of the AB report on *US - Wool Shirts and Blouses*, the complainant needs to establish a *prima facie* case that its claim holds.¹³ Case-law has not specified what constitutes *prima facie* evidence but, in general, some sort of reasonableness-standard seems to emerge. Assuming a *prima facie* case has been made, the burden of production will shift to the other party: the panel report on *Thailand – H-Beams* for example, requests (§7.49) from Thailand to provide *effective refutation* against Poland's *prima facie* case. However, this depiction of dispute adjudication as a game of tennis where the ball has to fly above the net for the other party to respond is misleading: adjudicating bodies will look at the totality of the evidence each side has presented. As the AB noted in its report on *Korea – Dairy*, there is:

no provision in the DSU ... that requires a panel to make an explicit ruling on whether the complainant has established a *prima facie* case of violation before a panel may proceed to examine the respondent's defence and evidence...[§ 145 italics in the original].

Making a *prima facie* case is shorthand for observing a particular burden of persuasion.¹⁴ A *prima facie* case is not automatically made when the respondent remains silent: the panel on *Mexico – Taxes on Soft Drinks* ruled that the duty of the complainant to make a *prima facie* case is not affected by the defendant's decision not to challenge the claims and arguments made. Mexico had chosen not to raise any defence in some of the claims advanced by the US. The panel implicitly held that

¹³ Panels have used the term "to make a *prima facie* case" as equivalent to the obligation to "raise a presumption" that what is claimed is true (*US – Stainless Steel* at § 6.2).

¹⁴ See on this issue, the excellent analysis in Sanchirico (1997).

Mexico's inaction did not amount to admission that the US had made a *prima facie* case (§§ 8.16ff.). The panel went on and examined to what extent, in its view, and in absence of a Mexican response, such was indeed the case. Similarly, the fact that the defendant has attempted to rebut a claim presented by the complainant does not *necessarily* mean that, in the panel's view, the complainant has established a presumption (see, for example, *India – Autos* §§ 7.231 – 7.233).

Finally, the panel in the *US – 1916 Act (EC)* dispute concluded that evidence submitted by the complainant and the defendant was in *equipoise*. It then held that, in such cases, the advantage rests with the party responding to the claim (§ 6.58):

If, after having applied the above methodology, we could not reach certainty as to the most appropriate court interpretation, i.e. if the evidence remains in *equipoise*, we shall follow the interpretation that favours the party against which the claim has been made, considering that the claimant did not convincingly support its claim.

So, we know what the standard is (*prima facie*), but the question what exactly it amounts to still remains unanswered. The only way to respond to this question is to look at the case-law. Before however, we move to do that, it is warranted to visit the other 'horizontal' elements in case-law which circumscribe the burden of persuasion: the relevance of trade effects and regulatory intent.

3.3.2 No Trade Effects Required, Sometimes Intent Required

WTO adjudicating bodies have consistently held in NT cases that no adverse trade effects ¹⁵ (resulting from the measure challenged) need to be shown for the establishment of a violation of Art. III (or Art. XI) GATT. On the other hand, the AB has stated that sometimes WTO adjudicating bodies will need to look into factors

¹⁵ This standard has actually been inherited from the GATT *Superfund*-jurisprudence.

(design, architecture of the measure) which reveal the protective application of the measure. This will be necessary in case of differential taxation (between domestic and foreign DCS product) where the amount of difference is more than *de minimis* but less than *substantial*.¹⁶ We are in the dark as to whether regulatory intent is relevant in cases a non-fiscal domestic instrument has been used¹⁷ and, so far, it seems to be the case that there is no need to inquire into regulatory intent whenever recourse to an import quota has been made.¹⁸

With this in mind, we can now turn to examine how the key terms in Art. III GATT have been interpreted in case-law, and respond thus to the question what is the burden of persuasion associated with claims under Art. III GATT.

3.3.3 The Key Terms in Art. III GATT

3.3.3.1 DCS

In its report on *Japan—Alcoholic Beverages II*, the AB provided its understanding of the term. The dispute arose because of a Japanese alcohol taxation scheme which, while on its face origin neutral, resulted in *predominantly* western-produced drinks (such as whisky and vodka) to be heavier taxed than drinks predominantly produced in Japan (sochu). The EC and the US protested, arguing that the products at hand were at least DCS, if not *like* products. The panel had already accepted that all of the products concerned (with the exception of vodka, which was deemed to be *like* product to sochu) were DCS products because they shared:

¹⁶ The two italicized terms were not discussed any further in the only case where they were invoked: in *Chile – Alcoholic Beverages*, the panel held (and the AB upheld) that a 20% tax differential was substantial.

¹⁷ The term *less favourable treatment* has been understood to be the equivalent to the term *so as to afford protection* appearing in Art. III.1 GATT. So far however, this term has not been interpreted in meaningful manner.

¹⁸ By virtue of the GATT panel report *US – Superfund*.

- (a) physical characteristics;
- (b) common end-uses; and
- (c) tariff classification

The AB upheld the panel's view. Importantly, by upholding the panel's findings in this respect, the AB made it clear that the test to define whether two products are DCS is in the marketplace, in the sense that, it is *consumer behaviour* that ultimately determines whether two products are in competition with each other. To determine whether two products are indeed in competition with each other, *econometric* evidence could be used (in this case, cross-price elasticity).¹⁹ . The EC had submitted some consumer surveys to this effect, suggesting that Japanese consumers in the absence of discriminatory taxation would be prepared to substitute *sochu* for a host of Western drinks (p 25).

In *Korea—Alcoholic Beverages*, the facts were very similar to those in *Japan—Alcoholic Beverages II*: beverages predominantly produced in Korea (*soju*) were hit by a substantially lower tax burden than their counterparts which were predominantly produced in the EC, Canada, and the US (vodka, whisky, etc). The EC, Canada, and the US complained, arguing that the Korean regime was GATT-inconsistent. But Korea argued that its system could not be held to be discriminatory since the products

¹⁹ Through the use of *cross price elasticity*, we capture an important aspect of the substitution among products in response to price changes: what is the change in the demanded quantity for product X, in case of a price change in product Y (formally, it is derived by dividing the percentage change in quantity of good X by the percentage change in price for good Y). If the ratio is negative, the products concerned are sometimes said to be *complements*; if positive, *substitutes*. The degree of elasticity can vary: the higher the number (above 1), the more the two products are substitutes. Neither the panel nor the AB discussed the required levels for products to be in a DCS relationship.

concerned were not DCS in the first place: the price of (diluted) *soju*²⁰ was a small fraction of the price of the Western drinks at hand. Consequently, following the analysis in *Japan—Alcoholic Beverages*, and the relevance of econometric indicators in deciding whether two products are DCS, Korea argued that with respect to (diluted) *soju* at least, no claim under Art. III.2 GATT could be sustained since, in presence of the important price differential across *soju* and the western drinks involved, it was unlikely that Korean consumers would substitute the latter for the former. The complaining parties argued against the importance of econometric indicators, and the panel essentially upheld their view: based on elements such as, consumer preferences, end uses of the product, the panel held that the products were indeed in a DCS-relationship. Only if cross-price elasticity was *the* decisive criterion conferring DCS status, would the panel had ruled otherwise, but such a reading of Art. III.2 GATT was in the panel's eyes unwarranted. The AB upheld the panel's findings without any modification in this respect. The factors that the AB took into account in order to confirm the DCS-relationship between *soju* and the western drinks, included information concerning potential competition, and evidence from other markets (in this case the Japanese market) (§§ 114 ff. and especially 133–4, 135–8). This latter approach (defining DCS-relationship without having at all recourse to econometric indicators) implies a lower burden for the complainant.

3.3.3.2 “So as to afford protection”

Case-law regarding the interpretation of the “so as to afford protection” (SATAP) requirement can be summarized as follows:

²⁰ The price of non-diluted *soju* was substantially higher.

- (a) There is a threshold issue: the tax differential must be more than *de minimis*, but it is not clear what constitutes a *de minimis* difference);²¹
- (b) A *substantial* tax differential will suffice in and of itself to establish a violation of Art. III.2 GATT;
- (c) Inconsistency with Art. III.2 GATT can be established even in case where the tax differential is not *substantial* (but is more than *de minimis*). In such cases, recourse to other factors is warranted. In *Japan—Alcoholic Beverages II*, the AB distinguishes between *subjective* intent, and the purpose of a regulatory intervention, as disclosed by *objective* features of the design of the measure; it is the latter that matters for an analysis whether the SATAP-requirement has been met, and not the former. In *Chile—Alcoholic Beverages*, the AB confirmed that *objective regulatory purpose*, that is, the purpose as revealed through the design and architecture of the measure, matters for the analysis of the SATAP-requirement. At the same time, however, it did not establish any criteria as to how it will evaluate the objective regulatory purpose, other than referring to the design and the architecture of the measure at hand. It discussed summarily the four regulatory objectives advanced as justification of the measure by Chile, and it explicitly rejected the relevance of the necessity-criterion when evaluating a claim under Art. III GATT (§§ 71–2).

3.3.3.3 “Like Products” (Art. III.2 GATT)

GATT case-law evidences two trends:

²¹ We can infer that infinitesimal tax differentials will satisfy the *in excess*—but not the SATAP—criterion.

- (a) a number of cases that define *like products* through reference to consumer reactions (e.g., *Border Tax Adjustments* and *Japan—Alcoholic Beverages I*);²²
- (b) there are two cases which explicitly refer to *regulatory intent* when establishing likeness among domestic and foreign products (*US – Taxes on Automobiles*, *US – Malt Beverages*). These cases espouse the so-called *aims and effect*-test.

In the WTO-era, the *aims and effect*-test was explicitly rejected by the AB (*Japan – Taxes on Alcoholic Beverages II*), holding that there was no place for intent-analysis in Art. III GATT. In the same report, the AB also held that for two products to be like they must besides being DCS, also share the same tariff classification.

3.3.3.4 “In Excess”

The AB has stated that even a *minimal* tax differential suffices to satisfy the in excess criterion. In *Japan—Alcoholic Beverages II*, the AB held (p. 23):

“Even the smallest amount of ‘excess’ is too much. ‘The prohibition of discriminatory taxes in Article III:2, first sentence, is not conditional on a ‘trade effects test’ nor is it qualified by a *de minimis* standard.” (italics in the original).

3.3.3.5 “Like Products” (Art. III.4 GATT)

In its report on *EC—Asbestos*, the AB dealt with a French decree which banned the sales of asbestos-containing construction material. The sales ban was non-discriminatory (asbestos containing-construction material was banned, irrespective of its origin). One of the questions before the panel (and the AB) was whether asbestos

²² So far, there is not one single case where supply-substitutability has been accounted for when defining likeness or DCS relationship.

containing- and asbestos free-construction material were *like* products. In order to respond to this question, the AB had to first define the scope of *like* products. It held that the term *like* in Art. III.4 GATT should be interpreted in light of the over-arching purpose of Art. III GATT: absent some parallelism in the coverage across the two paragraphs (Art. III.2, 4 GATT), WTO Members would be in the position to circumvent the prohibition to discriminate across DCS products through non-fiscal instruments. Understanding the two provisions to be co-extensive was thus seen as *anti-circumvention* device. The AB held that the term *like* in Art. III.4 of the GATT cannot have coverage wider than the combined coverage of the terms *like* and *DCS* appearing in Art. III.2 GATT (§§ 98–100).

When it came to deciding whether the two products before it (Canadian asbestos containing-, and French asbestos free-construction material) were indeed like, the AB observed the differences in *physical characteristics* between the two products. In the AB's view, the *composition of a product* is very much part of the physical characteristics analysis. Products containing chrysotile fibres are different from products containing PCG fibres since the former are carcinogenic and the latter are not. It is not, nonetheless, the difference in the actual physical characteristics of the products that makes them unlike. It is the buyers' *perceptions* – as estimated by the AB – regarding the difference in risk associated with the two products that makes unlike (§§ 101–54).²³ What more, these buyers of the imported material would often not be exposed to the health risk, but would be indirectly affected, since their customers could be affected.

²³ The AB held that the presence of health risk in asbestos containing-construction material raised a presumption that the two products were unlike. Canada was called to rebut this presumption (which, *in casu*, Canada did not). In a separate but concurring opinion, an unnamed member of the AB held the view, that the scientific proof cited in this case was *sufficient* to conclude that the two products were *unlike*. One way to understand the need for a separate opinion is probably that, in this member's eyes, the difference in physical characteristics does not merely raise a presumption, but amounts to a home run: Canada could never rebut such evidence.

The finding of non-likeness was hence based on the AB's assessment of these construction companies' assessment of how the latter would be affected, through the market mechanism, of the assessment of their customers of differences in risk.

The *EC-Asbestos* dispute hence contains a novelty from a burden of proof point of view that can have far-reaching consequences for environmental disputes. In the dispute, when making its likeness determination, the AB did not rely on studies or information concerning *actual* buyer behaviour; the AB uses its own interpretation of what buyer would do, if facing a choice between the two products:

In this case especially, we are also persuaded that evidence relating to consumers' tastes and habits would establish that the health risks associated with chrysotile asbestos fibres influence consumers' behaviour with respect to the different fibres at issue. We observe that, as regards *chrysotile asbestos and PCG fibres*, the consumer of the fibres is a *manufacturer* who incorporates the fibres into another product, such as cement-based products or brake linings. We do not wish to speculate on what the evidence regarding these consumers would have indicated; rather, we wish to highlight that consumers' tastes and habits regarding *fibres*, even in the case of commercial parties, such as manufacturers, are very likely to be shaped by the health risks associated with a product which is known to be highly carcinogenic. A manufacturer cannot, for instance, ignore the preferences of the ultimate consumer of its products. If the risks posed by a particular product are sufficiently great, the ultimate consumer may simply cease to buy that product. This would, undoubtedly, affect a manufacturer's decisions in the marketplace. Moreover, in the case of products posing risks to human health, we think it likely that manufacturers' decisions will be influenced by other factors, such as the potential civil liability that might flow from marketing products posing a health risk to the ultimate consumer, or the additional costs associated with safety procedures required to use such products in the manufacturing process. (§ 122, italics in the original, underlining added).

In the preceding recital to the above quoted passage, the AB had noted:

Furthermore, in a case such as this, where the fibres are physically very different, a panel *cannot* conclude that they are "like products" if it *does not examine* evidence relating to consumers' tastes and habits... (italics in original).

One would have thought that to "examine evidence" would amount to more than to speculate about what buyers would do. To quote Horn and Weiler (2004):

An important link in the reasoning above, showing how the AB likeness criterion might be viewed as only concerning market relations, was that buyers in this market would take risk differences into account. This was based on an amazingly naïve belief in working of market, according to which the buyers (who are not end users) had to do this since they would otherwise lose customers. We do not want to suggest that this knowledge on the preferences of the ultimate consumers would not be an important factor limiting the usage of asbestos products. But there are a number of arguments to suggest the potential for the exposure to asbestos to be higher than socially desirable. For instance, because of costly information one should not expect all final consumers to be fully informed about all hazards. There are likely to be severe negative externalities associated with asbestos products, since final users of asbestos products may not care about the negative health impact of their use of asbestos-containing products for third parties. For instance, asbestos in the brakes of an auto may not cause much of a health hazard to the owner, but contributes to the spreading of asbestos in the air. Market failures are also likely to arise from fixed costs in litigation. For instance, the health damage from exposure to asbestos from a particular building might be limited, if it is a building in which most people spend a very limited time. But being exposed to asbestos in many such buildings may have severe negative consequences. But since each individual only suffers minor damage from any particular building, it might not pay to litigate. Or, the possibility of being sheltered by bankruptcy may adversely affect buyer behavior. For all these reasons one should expect that products containing asbestos are over-consumed relative to what would be socially efficient if the market is left unregulated. This is indeed precisely why the government intervention is needed. It is the fact that buyers tend to treat the products as closer substitutes than they are from the government's point of view that motivates the regulation.

The bottom-line here is that the burden of persuasion to establish likeness across two products one of which represents a risk to health can potentially be very high.

3.3.3.6 “Less Favourable Treatment”

In the same report, the AB held that the term *less favourable treatment* (LFT) appearing in Art. III.4 GATT echoes the principle set forth in Art. III.1 GATT: WTO Members should not use domestic measures so as to afford protection to domestic production (§ 100):

“The term ‘less favourable treatment’ expresses the general principle, in Article III:1, that internal regulations ‘should not be applied ... so as to afford protection to domestic production.’ If there is ‘less favourable treatment’ of the group of ‘like’ imported products, there is, conversely, ‘protection’ of the group of ‘like’ domestic products. However, a Member may draw distinctions between products which have been found to be ‘like,’ without, for this reason alone, according to the group of ‘like’ *imported* products ‘less favourable treatment’ than that accorded to the group of ‘like’ *domestic* products.” (emphasis in the original).

Since however, the two products were found to be unlike, there was no need for the AB to interpret this term.

3.3.3.7 Taking Stock

We can, thus, conclude that:

- (a) the test to define whether two products are DCS is in the marketplace;
- (b) there is no need for recourse to econometric indicators in order to establish a DCS relationship;
- (c) products are like if they are DCS and in addition share the same tariff classification;²⁴

²⁴ In the words of the AB (*Japan – Alcoholic Beverages II*), it must be detailed enough, a criterion that will be *usually* satisfied at the six digit-level.

- (d) there is no necessity to use data concerning the actual market, if differences in the composition of a product would obviously lead a “reasonable buyer” to distinguish between two products. Note, however, that the AB did not make a statement to the effect that *any* difference in the composition will suffice to raise such a presumption: in *EC – Asbestos*, the AB was dealing with a difference which could be detrimental to human health, according to sound scientific evidence;
- (e) if two goods are DCS, and the tax differential between them is substantial, then Art. III.2 GATT has been violated. To establish a violation of Art. III.2 GATT when there is no substantial tax differential across DCS products, the complainant has to show a more than *de minimis* tax differential, and that the objective intent of the tax scheme, as evidenced by its design, and overall architecture, was to protect the domestic product;
- (f) if two goods are like, and the consistency of a fiscal instrument with the GATT is being challenged, all the complainant needs to show is that the domestic good benefits from an even infinitesimally lower tax;
- (g) if two goods are like, and the consistency of a non fiscal instrument with the GATT is being challenged, the complainant needs to show that LFT is being accorded to the foreign good. This term has not been interpreted as of yet, but in light of the parallelism that case-law has drawn between its function and that of the SATAP-requirement, one can legitimately take the view that the conclusion under (e) above holds here as well.

3.3.4 The Key Terms in Art. XI GATT

3.3.4.1 Import or Export Restriction

The most often cited Art. XI GATT case is *Japan – Trade in Semiconductors*, where a GATT panel was called to adjudicate a complaint by the EC to the effect that, the Japanese government, by providing incentives to its private sector to raise its prices when exporting semiconductors to Europe (in order to conform to the *Semiconductor Pact* that it had signed with the US), it had *de facto* imposed a quantitative restriction (QR) on exports in violation of Art. XI GATT. According to the panel's holding in this case, all the complainant needs to show is that a QR has been in place: there is no need to show that a numerical target has been set; the complainant needs to show that the measure has a QR-effect. This is a rather low standard, since, presumably, most measures would have such an effect. But the complainant also needs to show that the QR is attributable to the government. Without formally saying so, the panel accepted a *but for*-test, where the issue is whether a higher volume would have been imported absent government involvement. In this vein, there is no need to show that the government is the direct author of the challenged behaviour; it suffices that the government has channeled certain behaviour (say a government loan at preferential rates) through a private body (say a private bank). The complainant does not need to demonstrate that the government *mandated* the challenged behaviour either; it suffices to show that it provided the private entity with enough incentives to do so. This last point was also made clear in the panel report on *Japan – Trade in Semiconductors*.

Note however, that a subsequent panel (*Argentina – Hides and Leather*) in its report took a different view without however, explicitly reversing *Japan – Trade in Semiconductors*. The claim by the EC, the complainant in this case, was that the presence of representatives of the domestic downstream industry (leather products) at

customs clearance procedures in Argentina, sufficed to establish a QR, by reducing the incentives for the domestic upstream industry (hides) to allow exports, since exporters of the raw material would risk being penalized by the domestic downstream industry by refusing them sales. The panel stated that, for a successful legal challenge to be mounted, the complainant must demonstrate a *causal link* between the measure attacked and the (reduced) level of exports. A more demanding standard of review is, hence, appropriate but what is this standard? The panel's view is that a WTO Member is under no obligation to eliminate *all potential* for a QR-effect (§ 11.19):

We agree with the view expressed by the panel in *Japan – Film*. However, we do not think that it follows either from that panel's statement or from the text or context of Article XI:1 that Members are under an obligation to exclude any possibility that governmental measures may enable private parties, directly or indirectly, to restrict trade, where those measures themselves are not trade-restrictive. [*italics in the original*]

In the case at hand, the panel rejected the EC claim, since all it had submitted was evidence regarding the presence of downstream industry representatives during customs clearance. The panel did not refute that such presence *might* have a quantitative effect, but did not see this as sufficient evidence that a violation had occurred. The panel report was not appealed.

3.3.5 The Key Terms in Art. XX GATT

3.3.5.1 Means Are Justiciable, Not Ends

The AB, in its report on *Korea – Various Measures on Beef* clarified (§ 176) the extent of its judicial review of a measure, the legitimacy of which is being sought under Art. XX(d) GATT. In doing so, it incorporated case-law under Art. XX(b) GATT, at least implicitly taking the view that the standard of review should be symmetric across the various provisions of Art. XX GATT. The AB held that the judicial review has to be

confined to the means used to achieve a particular objective, and cannot extend to an examination of the legitimacy of the ends themselves:

It is not open to doubt that Members of the WTO have the right to determine for themselves the level of enforcement of their WTO-consistent laws and regulations. We note that this has also been recognized by the panel in *United States – Section 337*, where it said: "The Panel wished to make it clear that this [the obligation to choose a reasonably available GATT-consistent or less inconsistent measure] does not mean that a contracting party could be asked to change its substantive patent law or its desired *level of enforcement* of that law". [italics and emphasis in the original].

Over the years, however, the AB made it clear that it would be more deferential when human (life and) health was at stake, and less so when WTO Members were pursuing other regulatory objectives mentioned in the body of Art. XX GATT. The AB first announced in its report on *Korea – Various Measures on Beef*, that it would take into account the importance of the objective sought when measuring the necessity of the means employed to attain it. In its report on *EC – Asbestos*, the AB confirmed that this was indeed the case (§ 172):

We indicated in *Korea – Beef* that one aspect of the "weighing and balancing process ... comprehended in the determination of whether a WTO-consistent alternative measure" is reasonably available is the extent to which the alternative measure "contributes to the realization of the end pursued". In addition, we observed, in that case, that "[t]he more vital or important [the] common interests or values" pursued, the easier it would be to accept as "necessary" measures designed to achieve those ends. In this case, the objective pursued by the measure is the preservation of human life and health through the elimination, or reduction, of the well-known, and life-threatening, health risks posed by asbestos fibres. The value pursued is both vital and important in the highest degree."[italics in the original]²⁵

²⁵ See the analysis by Horn and Weiler (2007) in this respect.

The AB, in its report on Brazil – Retreaded Tyres, underscored this point in the context of an environmental dispute. The facts of the case are reproduced in § 118 of the report:

Tyres are an integral component in passenger cars, lorries, and airplanes and, as such, their use is widespread in modern society. New passenger cars are typically sold with new tyres. When tyres need to be replaced, consumers in some countries may have a choice between new tyres or "retreaded" tyres. This dispute concerns the latter category of tyres. Retreaded tyres are used tyres that have been reconditioned for further use by stripping the worn tread from the skeleton (casing) and replacing it with new material in the form of a new tread, and sometimes with new material also covering parts or all of the sidewalls. Retreaded tyres can be produced through different methods, one of which is called "remoulding".

In the AB's view, the relative importance is the starting point of necessity-analysis (§ 143):

In *US – Gambling*, the Appellate Body addressed the "necessity" test in the context of Article XIV of the GATS. The Appellate Body stated that the weighing and balancing process inherent in the necessity analysis "begins with an assessment of the 'relative importance' of the interests or values furthered by the challenged measure", and also involves an assessment of other factors, which will usually include "the contribution of the measure to the realization of the ends pursued by it" and "the restrictive impact of the measure on international commerce". (italics in the original)

In this vein, the AB has accepted that the pursuance of a 'zero risk' policy is legitimate when the risk involves human health (*EC – Hormones*), whereas it has outlawed a Japanese measure allegedly aimed at protecting animal health in light of the negligibility of the risk involved (*Japan – Apples*).

3.3.5.2 “Necessary” (Art. XX(b) GATT)

Environmental disputes can conceivably come under either Art. XX(b), or Art. XX(g) GATT.²⁶ Art. XX(b) GATT has been construed as extending to cover *environmental protection*, although the term as such is not explicitly mentioned in the body of Art. XX(b) GATT. For a measure to be consistent with Art. XX(b) GATT, it must be *necessary* to achieve the *ends* pursued. The *necessity*-requirement has been interpreted in various GATT/WTO panels. In short, a measure is *necessary* if it is the *least restrictive* (in terms of impact on international trade transactions) measure reasonably available to the regulating state permitting it to achieve the intended result. There is abundant case-law regarding the interpretation of the necessity-requirement:

First, case-law has consistently held that the level of efficiency remains the privilege of the regulating state. The *necessity*-requirement requires an investigation of the relationship between two elements: trade liberalization, and the objective pursued by the regulating WTO Member; the measure ultimately chosen must allow a WTO Member to pursue its objective while being the least restrictive on trade liberalization. Crucial to this discussion, is that the alternative measure is as *efficient* as the one chosen to achieve the objective pursued by the regulating state: adjudicating bodies cannot impose on a regulating WTO Member a less efficient, but probably less restrictive, measure, since it is up to WTO Members to *unilaterally* choose the level of enforcement of the measure pursued (by virtue of the standard of review alluded to above, according to which *means* are justiciable, *ends* are not, even if the degree of *deference* by the WTO adjudicating body might vary depending on the objective sought). The AB made this point clear in its report on *EC – Asbestos* (§§ 173 – 175):

²⁶ Disputes can, in theory, come under Art. XX(d) GATT as well. This has never happened so far. But even if it did, which we think is unlikely, the legal test for compliance is identical to that embedded in Art. XX(b) GATT. Hence, there is no need to include a discussion on Art. XX(d) GATT as well.

Canada asserts that "controlled use" represents a "reasonably available" measure that would serve the same end. The issue is, thus, whether France could reasonably be expected to employ "controlled use" practices to achieve its chosen level of health protection – a halt in the spread of asbestos-related health risks.

In our view, France could not reasonably be expected to employ any alternative measure if that measure would involve a continuation of the very risk that the Decree seeks to "halt". Such an alternative measure would, in effect, prevent France from achieving its chosen level of health protection. On the basis of the scientific evidence before it, the Panel found that, in general, the efficacy of "controlled use" remains to be demonstrated. Moreover, even in cases where "controlled use" practices are applied "with greater certainty", the scientific evidence suggests that the level of exposure can, in some circumstances, still be high enough for there to be a "significant residual risk of developing asbestos-related diseases." The Panel found too that the efficacy of "controlled use" is particularly doubtful for the building industry and for DIY enthusiasts, which are the most important users of cement-based products containing chrysotile asbestos. Given these factual findings by the Panel, we believe that "controlled use" would not allow France to achieve its chosen level of health protection by halting the spread of asbestos-related health risks. "Controlled use" would, thus, not be an alternative measure that would achieve the end sought by France.

For these reasons, we uphold the Panel's finding, in paragraph 8.222 of the Panel Report, that the European Communities has demonstrated a *prima facie* case that there was no "reasonably available alternative" to the prohibition inherent in the Decree. As a result, we also uphold the Panel's conclusion, in paragraph 8.223 of the Panel Report, that the Decree is "necessary to protect human ... life or health" within the meaning of Article XX(b) of the GATT 1994. (italics and emphasis in the original)

In §171 of its report on *Brazil-Retreaded Tyres*, the AB reproduced this analysis in an environmental dispute:

We note that the objective of the Import Ban is the reduction of the "exposure to the risks to human, animal or plant life or health arising from the accumulation of waste tyres" and that "Brazil's chosen level of protection is the reduction of [these] risks ... to the maximum extent possible", and that a measure or practice will not be viewed as an alternative unless it "preserve[s] for the responding Member its right to achieve its desired level of protection with respect to the objective pursued".

However, there is a presumption that recourse to *import embargos* should be allowed only in exceptional circumstances. The AB held (*Brazil – Retreaded Tyres*) that, in principle, such measures would be accepted only if it was proven that they have made material contribution to the attainment of the stated objective (§ 150):

As the Panel recognized, an import ban is "by design as trade-restrictive as can be". We agree with the Panel that there may be circumstances where such a measure can nevertheless be necessary, within the meaning of Article XX(b). We also recall that, in *Korea – Various Measures on Beef*, the Appellate Body indicated that "the word 'necessary' is not limited to that which is 'indispensable'". Having said that, when a measure produces restrictive effects on international trade as severe as those resulting from an import ban, it appears to us that it would be difficult for a panel to find that measure necessary unless it is satisfied that the measure is apt to make a material contribution to the achievement of its objective. Thus, we disagree with Brazil's suggestion that, because it aims to reduce risk exposure to the maximum extent possible, an import ban that brings a marginal or insignificant contribution can nevertheless be considered necessary. [*italics in the original*]

In the same vein, the GATT panel on *Thailand – Cigarettes* explained that when faced with a GATT-consistent and a GATT-inconsistent option, the WTO Member must always choose the former, assuming, of course, that it does not prejudice the level of efficiency sought. Borrowing from the case-law under Art. XX(d) GATT, the panel held that (§ 75):

The Panel concluded from the above that the import restrictions imposed by Thailand could be considered to be 'necessary' in terms of article XX(b) only if there were no alternative measure consistent with the General Agreement, or less inconsistent with it, which Thailand could reasonably be expected to employ to achieve its health policy objectives.

Thailand had argued that its measure, which in practice amounted to a trade embargo on the importation of cigarettes, was justified by the fact that it aimed at ensuring the quality of cigarettes imported, while restricting the overall quantity sold in its market. The panel felt that Thailand could have ensured both objectives through the use of non-discriminatory, and hence GATT-consistent measures (bans on advertising, non-discriminatory labelling requirements, etc.). When the panel satisfied itself that Thailand could indeed have reached its objectives by employing GATT-consistent measures, it found that Thailand had violated its obligations under Art. XX(b) GATT (§ 81).

Second, the AB clarified, in § 178 of its report on *EC—Asbestos*, that WTO Members can, but do not have to use scientific expertise in order to justify a regulatory intervention through recourse to Art. XX(b) GATT. Furthermore, even if they rely on scientific evidence, it does not have to represent the majority opinion in the relevant scientific field:

In justifying a measure under Article XX(b) of the GATT 1994, a Member may also rely, in good faith, on scientific sources which, at that time, may represent a divergent, but qualified and respected, opinion. A Member is not obliged, in setting health policy, automatically to follow what, at a given time, may constitute a majority scientific opinion. Therefore, a panel need not, necessarily, reach a decision under Article XX(b) of the GATT 1994 on the basis of the “preponderant” weight of the evidence.

Third, in the same report, the AB held that there is no need to quantify the contribution of means to ends, for a measure to pass the consistency-test with Art. XX(b) GATT: a qualitative analysis, by and large, suffices (§ 146).

Fourth, the AB held, in *Korea – Various Measures on Beef*, that *necessary* should not be equated to *indispensable*, since, in its view, the term *necessary* in Art. XX(d) GATT refers to a *range* of necessary options. The AB explained that it understands *necessity* to be on one end of a logical continuum, and *indispensability*, on the other. The boundaries are hard to define but it seems reasonable to conclude that, what the AB had in mind, was to provide some leeway to the regulating WTO member by relaxing the standard of review. In the words of the AB (§§ 161, 163, 164):

We believe that, as used in the context of Article XX(d), the reach of the word “necessary” is not limited to that which is “indispensable” or “of absolute necessity” or “inevitable”. Measures which are indispensable or of absolute necessity or inevitable to secure compliance certainly fulfill the requirements of Article XX(d). But other measures, too, may fall within the ambit of this exception. As used in Article XX(d), the term “necessary” refers, in our view, to a range of degrees of necessity. At one end of this continuum lies “necessary” understood as “indispensable”; at the other end, is “necessary” taken to mean as “making a contribution to.” We consider that a “necessary” measure is, in this continuum, located significantly closer to the pole of “indispensable” than to the opposite pole of simply “making a contribution to”.

...

There are other aspects of the enforcement measure to be considered in evaluating that measure as “necessary”. One is the extent to which the measure contributes to the realization of the end pursued, the securing of compliance with the law or regulation at issue. The greater the contribution, the more easily a measure might be considered to be “necessary”. Another aspect is the extent to which the compliance measure produces restrictive effects on international commerce, that is, in respect of a measure inconsistent with Article III:4, restrictive effects *on imported goods*. A measure with a relatively slight impact upon imported products might more easily be considered as “necessary” than a measure with intense or broader restrictive effects.

In sum, determination of whether a measure, which is not “indispensable”, may nevertheless be “necessary” within the contemplation of Article XX(d), involves in every case a process of weighing and balancing a series of factors which prominently include the contribution made by the compliance measure to the enforcement of the law or regulation at issue, the importance of the common interests or values protected by that law or regulation, and the accompanying impact of the law or regulation on imports or exports. (*italics in the original*)

It follows that measures which are not, strictly speaking, indispensable to reach the objective pursued, might still qualify as necessary, depending on the circumstances.

Fifth, in its report on *Korea – Various Measures on Beef*, the AB held that the *necessity*-requirement should not be interpreted so as to force WTO Members to use measures that are not *reasonably available* to them (§ 166):

In our view, the weighing and balancing process we have outlined is comprehended in the determination of whether a WTO-consistent alternative measure which the Member concerned could ‘reasonably be expected to employ’ is available, or whether a less WTO-inconsistent measure is ‘reasonably available’.

What is *reasonably available* depends on endowments proper to the regulating state, it is in other words an endogenous requirement. Case-law has attempted to solve this issue by deciding on the allocation of burden of production of proof, when the question of *reasonable availability* arises. In *US – Gambling*, the AB explained the shift in the burden of proof whenever the absolutely least restrictive measure is unavailable to the regulating state (§§ 309 – 311). This is how the approach advocated in *US – Gambling* would apply in the GATT-context:²⁷

- (a) the party invoking Art. XX GATT will carry the initial burden to prove that its measure is *necessary*;
- (b) assuming it has established that this indeed is the case, the burden will shift to the other party to show that there is another, equally efficient but *less restrictive* option which, if privileged, would allow it to achieve its regulatory objective;

²⁷ This is a GATS case. For an application of this standard in a GATT-case, see the AB report on *Brazil – Retreaded Tyres*, §§ 171ff.

- (c) assuming that an adequate demonstration has been made, the burden will shift again and this time the regulating state will have to show that the *less restrictive* option is not *reasonably available* to it.

To evaluate the *reasonable availability* of a measure:

...factors such as the trade impact of the measure, the importance of the interests protected by the measure, or the contribution of the measure to the realization of the end pursued, should be taken into account in the analysis...

can be taken into account. This is what the AB held in *Dominican Republic – Import and Sale of Cigarettes* (§ 70). This is probably the most decisive attempt by the AB to make sure that *necessity* does not operate as a stranglehold. By “endogenizing” the *necessity* requirement, the AB showed its willingness to respect national idiosyncratic attributes. The *absolutely least restrictive* measure might, for example, sometimes be a subsidy, which could be simply unaffordable to a WTO Member with severe budgetary constraints. The *necessity*-requirement hence does not exclude the possibility that two different WTO Members must use different *means* to comply with Art. XX GATT while pursuing the same *ends*.

There has been divergent case-law, concerning the issue whether it is for the panel to come up with a *reasonably available* alternative, or whether it is up to the party challenging the measure to do so. The panel on *Canada—Wheat Exports and Grain Imports* is an example of the former approach, whereas the AB report on *Japan—Agricultural Products II* (§§ 123–30) of the latter. This issue was resolved in the AB report on *US—Gambling*, where, as discussed above, assuming that a *prima facie* case has been made (that the *necessity*-requirement has been met), the burden of proof

shifts to the other party (the original complainant) who will have to demonstrate that another, *less restrictive* (but equally effective) measure should have been privileged.

3.3.5.3 “Relating to” Conservation of “Exhaustible Natural Resources” (Art. XX(g) GATT)

Environmental disputes can also come under Art. XX(g) GATT, which deals with *exhaustible natural resources*. The AB, in its report on *US—Shrimp* held that the term *exhaustible natural resources* should not be confined to non-living resources. At dispute was a US measure which banned the import of shrimps fished in a manner that led to the accidental taking of the life of sea turtles. The US argued that its measure was in full conformity with the requirements of Art. XX(g) GATT, and if not, anyway with the requirements of Art. XX(b) GATT. The complainants (India, Malaysia, Pakistan, and Thailand) argued that the negotiating history of the term *exhaustible natural resources* pointed to the view that this term was meant to cover non-living resources only, minerals for example (§ 127, AB report).²⁸ The question, thus, arose whether the US measure should come under the purview of Art. XX(b), or Art. XX(g) GATT.²⁹ The first step in analyzing this claim is, of course, the question whether sea turtles are indeed an *exhaustible natural resource*. In the view of the AB, the term must be given a meaning in accordance with today’s perceptions (§ 130):

... the generic term ‘natural resources’ in Article XX(g) is not ‘static’ in its content or reference, but is rather ‘by definition, evolutionary’.

²⁸ On the negotiating history of this term see, *inter alia*, Matsushita *et al.* (2006), and Irwin *et al.* (2008).

²⁹ As we will see shortly, the burden of persuasion under Art. XX(g) GATT is less demanding than that under Art. XX(b) GATT. Hence, this was not a trivial issue, as the US attorneys had strong interest in subjecting the measure under the less demanding standard.

The AB went on to state that sea turtles, a living organism, could very well be regarded as an *exhaustible natural resource*. International conventions (*CITES*) recognizing sea turtles as *endangered species*, and others which use the term natural resources to cover both living- and non-living organisms (*UNCLOS, United Nations Convention on the Law of the Sea*) were cited (§§ 130ff., AB report) in support (without, however, prescribing in a definitive manner the legal relevance of such instruments in the WTO legal order). The defining criterion (which distinguishes *exhaustible* from *non-exhaustible natural resources*) is, in the AB's view, the response to the question whether the item at hand is being *depleted faster than it is being reproduced* (§§ 128, 130 and 153):

Textually, Article XX(g) is *not* limited to the conservation of "mineral" or "non-living" natural resources. The complainants' principal argument is rooted in the notion that "living" natural resources are "renewable" and therefore cannot be "exhaustible" natural resources. We do not believe that "exhaustible" natural resources and "renewable" natural resources are mutually exclusive. One lesson that modern biological sciences teach us is that living species, though in principle, capable of reproduction and, in that sense, "renewable", are in certain circumstances indeed susceptible of depletion, exhaustion and extinction, frequently because of human activities. Living resources are just as "finite" as petroleum, iron ore and other non-living resources.

...

From the perspective embodied in the preamble of the *WTO Agreement*, we note that the generic term "natural resources" in Article XX(g) is not "static" in its content or reference but is rather "by definition, evolutionary". It is, therefore, pertinent to note that modern international conventions and declarations make frequent references to natural resources as embracing both living and non-living resources.

...

The language [of the Preamble of the *WTO Agreement*] demonstrates a recognition by WTO negotiators that optimal use of the world's resources should be made in accordance with the objective of sustainable development. As this preambular language reflects the intentions of negotiators of the *WTO Agreement*, we believe it must add colour, texture and shading to our interpretation of the agreements annexed to the *WTO Agreement*, in this case, the GATT 1994. We have already observed that

Article XX(g) of the GATT 1994 is appropriately read with the perspective embodied in the above preamble. (*italics in the original*)

In *US – Gasoline*, the panel held that clean air was an exhaustible natural resource (§ 6.37). The dispute related to the implementation by the US of its domestic legislation known as the *Clean Air Act* of 1990 (CAA) and, more specifically, to the regulation enacted by the US' Environmental Protection Agency (EPA) pursuant to that Act, to control toxic and other pollution caused by the combustion of gasoline manufactured in or imported into the US. The CAA had established two gasoline programs to ensure that pollution from gasoline combustion did not exceed the 1990 levels, and that pollutants in major population centres were reduced. A preliminary question was raised by the US at the oral hearing concerning arguments made by Venezuela and Brazil in their respective *appellees' submissions* on the issues of whether clean air is an exhaustible natural resource within the meaning of Art. XX(g) GATT. The AB agreed with the US that the issue was not properly before it (pp. 10ff.). As a result, the AB did not rule on this issue.

Two requirements must be cumulatively met for a measure protecting *exhaustible natural resources* to be judged GATT-consistent:

- (a) it must be *relating to* the conservation of *exhaustible natural resources*; and
- (b) it must be made effective in conjunction with *restrictions on domestic production or consumption*.

We take each point in turn. The panel in its report on *US – Gasoline*, went on to apply the GATT panel's on *Herring and Salmon* reasoning and conclusion as to the

interpretation of the term *relating to*: in this panel's view this term was tantamount to the term *primarily aimed*. The AB disagreed. It noted in its report on *US—Gasoline*, that past case-law had constructed the term *relating to* akin to *primarily aimed at*. The AB was not at ease, nonetheless, with this understanding of the term, even though the parties to the dispute seemed to endorse it (pp 18 and 19):

All the participants and the third participants in this appeal accept that a measure must be “primarily aimed at” the conservation of exhaustible natural resources in order to fall within the scope of Article XX(g). Accordingly, we see no need to examine this point further, save, perhaps, to note that the phrase “primarily aimed at” *is not itself treaty language and was not designed as a simple litmus test for inclusion or exclusion from Article XX(g)*. (italics added)

In its report on *US—Shrimp*, the AB had anew the opportunity to express its views on this issue. It held that *relating to* implied a *rational connection* between a measure and the conservation of exhaustible natural resources, and nothing beyond that (§ 141):

In its general design and structure, therefore, Section 609 is not a simple, blanket prohibition of the importation of shrimp imposed without regard to the consequences (or lack thereof) of the mode of harvesting employed upon the incidental capture and mortality of sea turtles. Focusing on the design of the measure here at stake, it appears to us that Section 609, *cum* implementing guidelines, is not disproportionately wide in its scope and reach in relation to the policy objective of protection and conservation of sea turtle species. The means are, in principle, reasonably related to the ends. The means and ends relationship between Section 609 and the legitimate policy of conserving an exhaustible, and, in fact, endangered species, is observably a close and real one. (italics in the original)

Arguably, the *rational connection*-standard endorsed by the AB is more *deferential* towards the regulating WTO Member than the previously employed *primarily aimed*-standard, since even measures which do not *primarily* aim at the conservation of

exhaustible natural resources can be justified through recourse to Art. XX(g) GATT, assuming that they have a *rational connection* with the objective stated in this provision.

Art. XX(g) GATT further requires that, when imposing trade restrictions to protect *exhaustible natural resources*, WTO Members must also adopt measures aimed at restricting domestic consumption or production (as the case may be). The AB, in its report on *US—Gasoline*, explained that the requirement to demonstrate that import-restricting measures are taken in conjunction with domestic measures aiming at the conservation of *exhaustible natural resources* is an even-handedness requirement. It went on to stress that there is no need for an *effects-test* in order to comply with Art. XX(g) GATT in this respect (pp 20–1):

... the clause “if such measures are made effective in conjunction with restrictions on domestic product or consumption” is appropriately read as a requirement that the measures concerned impose restrictions, not just in respect of imported gasoline but also with respect to domestic gasoline. The clause is a requirement of *even-handedness* in the imposition of restrictions, in the name of conservation, upon the production or consumption of exhaustible natural resources.

... if *no* restrictions on domestically-produced like products are imposed at all, and all limitations are placed upon imported products *alone*, the measure cannot be accepted as primarily or even substantially designed for implementing conservationist goals. The measure would simply be naked discrimination for protecting locally-produced goods.

We do not believe ... that the clause “if made effective in conjunction with restrictions on domestic production or consumption” was intended to establish an empirical “effects test” for the availability of the Article XX(g) exception. (*italics in the original*)³⁰

³⁰ An example of an even-handed measure is offered in §§ 144–5 of the AB report on *US—Shrimp*. The AB, in its report on *US—Shrimp* faced, *inter alia*, the question whether Art. XX(g) GATT includes a jurisdictional limit, in the sense that WTO Members can intervene to protect *exhaustible natural resources* only *within* their jurisdiction, as the latter is defined by public international law. Nationality and territoriality are the two most common bases, in public international law, for exercising jurisdiction:

3.4 Concluding Remarks on GATT Case-Law

The allocation of the burden of production under current case-law seems reasonable: it should be for the complainant to contest the consistency of a measure with the GATT obligations included in Art. III, XI GATT, and to the defendant to justify, if need be, its measures through recourse to Art. XX GATT. So much should be clear. The problem we detect is with respect to the burden of persuasion that WTO adjudicating bodies have imposed on parties carrying the burden of proof.

The rather “light” burden of persuasion imposed on the complainant has been a contributing factor towards some (type I) errors, where the WTO adjudicating bodies have outlawed practices that, on the evidence submitted, it should be hard to outlaw. Here are some highly, in our view, illustrative examples:

under the former, a state can regulate behaviour of its nationals; under the latter, a state can regulate transactions taking place in its territory. Public international law practice gives the edge to the latter, when a conflict between the two arises. On the other hand, one further distinguishes between *objective* and *subjective* territoriality: the former captures activities occurring within national frontiers; the latter captures activities which occur in state A, but which affect state B. B could legitimately, by virtue of *subjective* territoriality (*effects doctrine*) punish, for example, A’s *export cartels* which cartelize its own (B’s) market. Indeed, except for some extreme cases, state A would have little incentive to regulate the behaviour of an *export cartel* operating from its market but affecting the rest of the world. Antitrust advocacy usually attributes such inactivity to the fact that domestic antitrust laws are there to protect domestic (as opposed to foreign) consumers’ welfare. On this issue, see Horn and Mavroidis (2008). In § 133 of its report on *US—Shrimp*, the AB avoided responding directly to the question whether the US measure respected the *territoriality*-principle:

We do not pass upon the question of whether there is an implied jurisdictional limitation in Article XX(g), and if so, the nature or extent of that limitation. We note only that in the specific circumstances of the case before us, there is a sufficient nexus between the migratory and endangered marine populations involved and the United States for purposes of Article XX(g).

3.4.1 Korea – Alcohol DS75

The dispute in a nutshell: The EC and the US complain about the taxation of alcoholic drinks in Korea. Korea taxes one form of *soju* (diluted *soju*), which is a predominantly Korea-produced alcoholic drink, substantially lower than it taxes whisky and other drinks. The taxation scheme does not condition the tax treatment on the origin of the product. Still, the complainants claim that, because *soju* is predominantly produced in Korea, whereas the drinks produced on the higher tax-ebb are predominantly produced in western countries, the differential taxation amounts to *de facto* discrimination in favour of *soju*.

Evidence submitted by the complainants: Complainants produced one econometric study, the *Dodwell* study (§§ 5.92 and 5.143 of the report) on the cross-price elasticity between *soju* and a series of western drinks. They further submitted other evidence where econometric indicators play almost no role: a test report by the Scotch Whisky Research Institute (§ 5.55), the Hankook study (§5.248), the Trendscape survey (§ 6.126), the Andrikopoulos and Holm studies (§ 6.202), and a US Embassy investigation (§ 6.334), which all make the point that western drinks will be competing with *soju* in the Korean market. With the absence of the *Dodwell* study, all other pieces of evidence are either a collection of small, un-representative samples of consumer reactions, or mere projections as to what exporters of alcoholic drinks to Korea should be expecting in terms of market response. Complainants, finally, produced a trade journal (§ 6.197), and promotional materials from the Korean company *Jinro* (§§ 6.180 and 6.200), which show that the company was advertising *soju* next to diluted *soju* as a potential competitor to western drinks.

Counter-evidence by the defendant: Korea concentrated its efforts on the *Dodwell* study. It first argued that there can be no cross-price elasticity between *soju* and

western drinks, in light of the fact that the price of *soju* is a small fraction (5%) of the price of the western drinks reviewed. Korea hired an economist (Brian Hindley), who prepared a report (*Hindley/Lexecon*) arguing that the *Dodwell* study was of very poor quality from an econometric point of view (§§ 5.210 – 5.229). Other studies (Sofres report (§ 5.230) and Nielsen study (§ 6.219), as well as national tax records (§ 3.35 – 3.61), media articles and advertisement material (§§ 3.57 – 3.61) and sales data from *Jinro* (§ 5.57) showed that the two products were for tax purposes treated as different products; but also, from the producers' perspective, the two products were destined to different segments of the market.

Evaluation by the AB: The AB upheld all of the panel's findings in this respect. It essentially reduced the importance of econometric indicators when it comes to showing likeness, arguing that cross-price elasticity is not the decisive criterion in this exercise. Implicitly, it set aside the evidence submitted by the complainants (*Dodwell* study) and its rebuttal by Korea (*Hindley/Lexecon* study). Having relegated price to an issue of less importance the AB found that *soju* and western drinks were DCS products (since they shared the same end use and consumers would treat them alike; they also had more or less the same appearance; and they were DCS in other markets).³¹ The panel and the AB did not specify, whether this conclusion was warranted in light of the studies submitted by the complainants (mere projections of future behaviour, most of them). They did underline however, that evidence from another market (Japan) suggested that this should be the case since, a very similar to *soju* Japanese product (*sochu*) was being treated as DCS-product to western drinks by Japanese consumers, and the WTO adjudicating bodies have already formally pronounced on this issue to this effect (DS8). Having established DCS-relationship

³¹ The panel first, and the AB subsequently, accepted that evidence from the Japanese market where *sochu*, a product similar to *soju*, and western drinks were in DCS-relationship, was relevant.

between the two products, the AB found against Korea in light of the differential taxation imposed. As shown above, the standard of review applicable to Art. III GATT cases does not require, as a matter of evidence, to demonstrate either effects on the market (income loss for exporters) or intent of the intervening government: it suffices that two goods have been found to be DCS and that the taxation imposed is not the same.

Our evaluation: The WTO adjudicating erred in treating diluted *soju* and western drinks as DCS-products. In this case, the panel and the AB disregarded evidence from the Korean market, and used evidence from the Japanese market to show that a product resembling *soju* (the Japanese *sochu*) was in DCS relationship with a series of western drinks. Neither the panel nor the AB however, paid any attention to the substantial price differential between diluted *soju* and *sochu* (a point forcefully argued by Korea), and as a result, found that a DCS relationship existed in spite of this price differential. The complainants had a rather easy burden to observe since price was not an issue in establishing DCS-relationship. Because of this error, the rest of their analysis is wrong as well. As we have argued elsewhere³², econometric indicators might not always yield satisfactory responses. Indeed there is some evidence to this effect in antitrust analysis (when constructing the relevant product market). They are however, a necessary first step. To the extent that Art. III.2 GATT is there to punish protectionist behaviour, and to the extent that for behaviour to be judged protectionist, one has to first establish that a pair of products participate in the same product-market and are being differently taxed, the first step of the analysis should have been the proper construction of the relevant product market. This did not happen here.

³² Horn and Mavroidis (2004).

3.4.2 Chile – Alcohol DS87

The dispute in a nutshell: Chile's tax on alcoholic beverages was a function of alcoholic content: the higher the alcoholic content, the higher the tax. The EC and the US complained that this scheme operated so as to afford protection to domestic production: most of the beverages benefiting from low tax were of Chilean origin (*pisco*), whereas the opposite was true for drinks such as whisky etc. The tax scheme was origin-neutral, in the sense that low alcoholic content-beverages wherever produced would benefit from the favourable tax burden. Consequently, if at all, the tax scheme afforded *de facto* discrimination to domestic products. Chile chose not to discuss the policy rationale for its scheme before the panel, but maintained that the scheme was non-discriminatory by any reasonable benchmark since most of the products taxed at the higher ebb were of Chilean origin.

Evidence submitted by the complainant: The EC, which took a leading role among complainants in this case, submitted evidence suggesting that Chilean products at the lower ebb (*pisco*) and at the higher ebb (whisky) were priced pre-tax at more or less identical levels (SM Price Survey reflected in §§ 4.75 and 7.34 of the panel report); evidence that Chilean producers of *pisco* viewed their products as competitors to whisky etc. (§§ 4.119 – 124, 7.46, 4.240, 4.257 – 258); the *Adimark Survey* (§ 4.249) which again pointed to the direction that *pisco* and whisky compete in the same relevant product market; actions by Chilean antitrust authorities, from which it follows that *pisco* and whisky compete in the same relevant product market (§ 4.265); and, finally, some excerpts from discussions before the Chilean law-making bodies evidencing the legislative intent behind the tax scheme (§§ 4.563, 4.580).

Counter-evidence by the defendant: Chile submitted little counter-evidence. Essentially, Chile maintained that the fact that the pre-tax price of two products is similar does not mean that they *necessarily* have to be burdened by the same tax as well. Chile pointed out that the system was not only intended to be non discriminatory, but that it was non discriminatory *de facto* as well: most of the products taxed at the higher ebb were of Chilean origin. In light of this evidence, Chile thought that no claim that the tax scheme operated so as to afford protection could be upheld. Chile also produced two studies (the *Nielsen study* § 4.139, and a regression analysis § 4.180) showing that some *pisco* was not operating in the same market as some high priced western alcoholic drinks.

Evaluation by the AB: Both the panel and the AB upheld the claims by the complainants. In their view, since the products at the higher and the lower ebb were DCS, and they were dissimilarly taxed, Chile was in violation of its obligation under Art. III.2 GATT. The fact that most of the products at the higher ebb were of Chilean origin, was simply immaterial; it sufficed that *some* of the products at the higher ebb were imported and most of their counterparts in the low ebb were domestic. The AB repeated that no effects analysis is required under Art. III.2 GATT. It also stated that intent could be relevant, if the tax difference in itself would not suffice to show discrimination. This was hardly the case here as the tax differential was quite substantial. On the other hand, Chile had not advanced any health-related arguments to defend its taxation either. In a rather cryptic sentence, the AB seems to suggest that it is not the progressive taxation scheme that it is opposed to, but rather the ‘sharpness’ in progression (the AB felt that from one tax category to another, the progress in tax burden was geometric).

Our evaluation: in Horn and Mavroidis (2004), we have already voiced our disagreement with this outcome. In a nutshell, we believe that this outcome is largely the result of the no effect-, no intent-test. Although we admit that we lack an operational definition of *protection*, we simply fail to conceive a reasonable standard by which one can strike down the Chilean legislation at hand: an effects-standard does not support the findings, since most of the products hit by the higher taxation are Chilean. An intent-test was never discussed. Moreover, were one to see something in the AB's sentences on the 'sharpness' of the tax differentials, one would have to do away with the intrinsic character of Art. III.2 GATT: for a WTO adjudicating body to be in a position to dictate the optimal tax burden, one would have to construe Art. III GATT as an instrument of positive- rather than negative integration. This understanding of Art. III GATT however, is at odds with both the text and its spirit.³³ So the complainant did not have to produce any study regarding the effects of the taxation, or evidence regarding the regulatory intent: they prevailed by showing that *some* whisky was taxed higher than *some* pisco.

3.4.3 Korea – Beef DS161

The dispute in a nutshell: Korea had requested and was granted authorization to impose a QR on beef. The legality of the QR was not at dispute in this case. Subsequent to this authorization, Korea went ahead and imposed a dual retail system: economic operators were free to choose whether they would carry domestic or imported beef, but could not simultaneously carry both.³⁴ The rationale for this regime was, in Korea's eyes, the need to protect the consumer who could be subjected to

³³ See the critique of Ehring (2002) against the AB report.

³⁴ With very few exceptions: some mega-stores could do so, provided that the two categories of beef were sold in different counters. No claim concerning discrimination resulting from this differential treatment was tabled however.

fraudulent practices: in light of the substantial price differential between the US and Korean beef (the former being substantially cheaper than the latter), and the impossibility to distinguish which is which in a store, the dual retail system guaranteed consumer protection since Korean authorities would know who sells what and traders had to display the origin of the beef sold in their premises. The US and Australia led the complaint arguing that the Korean regime was in violation of Art. III.4 GATT, since it treated imported beef less favourably than domestic beef. In their view, this was the case since only a few outlets ($\pm 5,000$) were selling imported beef whereas many more ($\pm 45,000$) were selling domestic beef. Korea rebutted the claims arguing that the number of outlets was the direct consequence of the legal quota in place; that the complainants provided no evidence as to the size, location etc. of the outlets selling domestic and foreign beef; that it had absorbed all of the quota over the years, with one exception (1997, when, as a result of the financial crisis, the overall consumption of beef had fallen dramatically); and that most importantly economic operators were free to choose between an outlet selling either domestic or foreign beef.

Evidence submitted by the complainant: the evidence submitted concentrated on excerpts from discussions before the National Assembly (§ 4.98, 6.68), governmental press releases (§ 2.21), pointing to the fact that the rationale behind the adoption of the dual retail system was to protect domestic beef. Media articles were supplied as well (§§ 7.29 – 7.30) which essentially made the same point. Trade statistics were offered laying out the number of outlets selling domestic and foreign beef.

Counter-evidence by the defendant: Korea adopted two lines of defense: it first claimed that no violation of Art. III.4 GATT had occurred since traders could freely choose the type of outlet they wanted to operate; the law provided equal

opportunities and equal burden to both types of outlets. Korea also pointed to the fact that no damage resulted for exporters because of the regime, since the quota had always been absorbed.³⁵ Korea requested from the panel and the AB to ignore information about the number of outlets, since in its view this was the direct outcome of the QR in place, the legality of which with the GATT was not an issue in the dispute. It stated that its laws were anyway consistent under Art. XX(d) GATT, since they aimed at protecting consumers from fraudulent practices. Besides the law itself, Korea submitted evidence from its preparatory work where the rationale for its enactment was made explicit (§ 237 in the AB report).

Evaluation by the Appellate Body: The panel found for the complainants, basing itself on the number of outlets as the most relevant piece of evidence. The AB in important part disagreed with the panel report, without however, reversing it. In its view, Korea was wrong because it modified the conditions of competition subsequent to the negotiation of a concession to the disadvantage of the imported goods. On the other hand, Korea's measures could not be justified as being necessary to protect consumers, since in the AB's view Korea should have chosen another (un-identified) option which would be less restrictive on international trade transactions. The AB was quick to point out that it was not by virtue of this judgment outlawing private practices with more or less the same effect, such as single branding etc.

Our evaluation: We believe that the AB erred in this case. Its judgment confuses violation with non-violation complaints. WTO Members are of course, free to modify conditions of competition any time they deem it appropriate, provided that they do not discriminate between domestic and imported goods when doing so. Was Korea

³⁵ With the exception mentioned above.

discriminating? As the case was argued, it is difficult to make this claim. The number of outlets was most likely, the direct outcome of the quota in place: the imported beef could satisfy only a *small* fraction of the demand; most traders would be interested in carrying the more expensive domestic beef. In the absence of any evidence on the location, dimensions of outlets, the claim looks even more fragile. The complainants prevailed essentially by pointing to the number of outlets without showing why the number should be attributable to the dual retail system.

The cases mentioned above are mere illustrations. They share one element in common: the complainant prevailed essentially because of the 'light' burden of persuasion that it was requested to produce. We will discuss the rationale for the misallocation of burden of persuasion in Section 5.

4 Burden of Proof in TBT/SPS Disputes

We next turn to BoP issues in the case law on TBT/SPS.

4.1 The Law

The TBT/SPS agreements, hailed as the 'new generation' agreements, deal with a subset of domestic instruments which are frequently geared towards environmental protection and protection of human health. Two types of instruments come under the scope of the TBT, technical regulations, compliance with which is compulsory, and standards, compliance with which is optional. Usually, a technical regulation (or a standard) defines specific product characteristics, such as size, shape, design,

functions, performance, labelling or packaging, as well as related process and production standards. The SPS coverage extends to measures aiming to protect public health, but also animal and plant health (e.g., environment) from the entry and spread of diseases. There is an overlap between these two agreements and Art. III GATT (which as we saw deals with *all* domestic instruments). The legal requirements for compliance vary across the three agreements (GATT, TBT, SPS). It cannot be thus excluded that the same transaction can come under any of these three agreements. The legal discipline, on the other hand, varies across these agreements: as we saw, the GATT requests that domestic measures are non discriminatory; the TBT requests from WTO Members to ensure that their technical regulations are not only non discriminatory, but further necessary for the attainment of the objective pursued (Art. 2.2 TBT); the SPS adds to these two requirements: SPS measures must be consistent (Art. 5.5 SPS), and in principle, based on scientific evidence (Art. 5.1 SPS). Note, nonetheless, that the SPS allows for the adoption of measures on precautionary grounds, even in the absence of scientific evidence (Art. 5.7 SPS).³⁶ In light of the overlap of the factual situation coming under the aegis of the three agreements and the differing legal requirements for compliance the question of hierarchy across the three agreements becomes imperative. Art. 1.5 TBT states that, in case of overlap between the TBT and the SPS, the latter prevails. Case-law has clarified that in case of

³⁶ The proliferation of non tariff barriers (NTB) aiming to protect public health, environment is a given. Increasingly traders have to face similar obstacles, especially because societies are not symmetrically risk-averse. They are also areas where there have been many abuses in the regulatory process: were one to use the number of disputes as proxy for this observation, one can only be astounded by the number of litigation that concern foodstuff and drinks. Public health and environment are areas where, at least in some parts of the world, the regulatory process has been heavily influenced by scientific progress, as a reaction to prior abuses.

overlap between the TBT and the GATT, it is the former that prevails (AB, *EC – Asbestos*, *EC – Sardines*).³⁷ Hence, the solution is SPS over TBT over GATT.

Both the TBT and the SPS recognize the relevance of international standards (IS) that have been negotiated, outside the WTO, in standard setting institutions such as the *ISO*, and the *Codex Alimentarius*. WTO Members must, in principle, observe an IS that can appropriately take care of their regulatory objective.

4.2 Burden of Production in TBT/SPS Disputes

In this section we will briefly consider the question of which party will lose, if neither party provides the court with sufficient evidence to fulfill a burden of persuasion target?

4.2.1 The General Rule

The discussion above is relevant here as well. The only additional issue is whether the allocation of the burden of production should be identical, irrespective whether we are in presence or absence of IS.

4.2.2 Unilateral Technical Regulations (Standards)/SPS Measures

So far there has been no case that directly addressed this issue. The allocation of the burden of proof in *EC – Sardines* is, nonetheless, relevant for our discussion here since the EC, by deviating from an IS, essentially adopted a unilateral measure: the AB allocated the burden of proof on the complainant in a case where the defendant had deviated from an IS, and justifying its choice arguing that it saw no reason why the allocation of the burden of production should be any different when a WTO Member

³⁷ See Horn and Weiler (2007a).

had deviated from an IS. It follows, that the default allocation of the burden of production is to the complainant challenging the consistency of a technical regulation with the TBT (AB report, at § 282). Note however, that the panel had sided with an argument by Peru to the effect that, it would be impossible for it to pronounce on the reasons why the defendant found it inappropriate or ineffective to base its law on the IS (AB report, at § 269). The AB disagreed and reversed the panel in this respect. In its view, there were sufficient transparency requirements embedded in the TBT, that would allow Peru to know the rationale behind the decision by the EC authorities to deviate from the IS (AB report, at § 277). Moreover, the AB held that, Peru could supplement its information on this score at the panel stage, since parties to the dispute are requested to provide information about the design and the rationale of their regulatory interventions (AB report, at § 280).

The solution is the same in the SPS-context. It is for the complaining party to demonstrate that a unilateral SPS measure is:

- (a) non-discriminatory;
- (b) based on scientific evidence;
- (c) necessary to achieve the stated objective; and
- (d) consistent (with other SPS measures adopted by the same WTO Member).³⁸

³⁸ See, for example, the panel and AB reports on *Australia – Salmon*. The solution is the same if the challenged measure was adopted on precaution, see the panel and AB reports on *Japan – Agricultural Products II*.

4.2.3 International Standards

Peru, in *EC – Sardines*, had argued that an IS existed which explained under what conditions the name *sardine* should be used, and that the EC had deviated from it. Peru expected that the burden of proof would then shift to the EC, a reasonable expectation in light of the wording of Art. 2.4 TBT:

Where technical regulations are required and relevant international standards exist or their completion is imminent, Members shall use them, or the relevant parts of them, as a basis for their technical regulations except when such international standards or relevant parts would be an ineffective or inappropriate means for the fulfillment of the legitimate objectives pursued, for instance because of fundamental climatic or geographical factors or fundamental technological problems.

We noted above, however, that the AB did not shift the burden of proof to the defendant. The solution in the TBT- is symmetric to that in the SPS-context. Indeed it was an SPS panel that first solved this issue in this way. The panel, in its report on *EC – Hormones (US)*, found that the burden rested with the deviating party (the EC) to prove that its deviation from the relevant international standard was justified under the SPS.³⁹ It held to this effect (§§ 8.86ff.):

Article 3.2...specifies that the complaining party has the burden of overcoming a presumption of consistency with the SPS Agreement in the case of a measure based on international standards. It thereby suggests by implication that when a measure is *not so based*, the burden is on the *respondent* to show that the measure is justified under the exceptions provided for in Article 3.3. (emphasis added)

The AB disagreed and reversed this finding. In its view, WTO Members that choose to

³⁹ Abdel Motaal (2004) provides an excellent account how the international standard at hand was prepared and adopted.

deviate from an IS should not be penalized for their decision to do so (§ 102):

... The presumption of consistency with relevant provisions of the *SPS Agreement* that arises under Article 3.2 in respect of measures that conform to international standards may well be an *incentive* for Members so to conform their SPS measures with such standards. It is clear, however, that a decision of a Member not to conform a particular measure with an international standard does not authorize imposition of a special or generalized burden of proof upon that Member, which may, more often than not, amount to a *penalty*. (italics and emphasis in the original).

4.3 Burden of Persuasion in TBT/SPS Disputes:

We now turn the question of how much should the party carrying the burden of production prove in order to fulfill this burden?

4.3.1 The General Rule

Our discussion in Section 3 on this score is relevant here as well.

4.3.2 The Standard of Review

Our discussion in Section 3 on this score is relevant here as well.

4.3.3 Unilateral Technical Regulations (Standards)/SPS Measures

No case has been litigated in the TBT context.

There has been some activity in the SPS-context. Our discussion in Section 3 on non discrimination, and necessity is relevant here as well. We will hence, limit our discussion to the remaining two requirements: scientific evidence, and consistency.

Scientific evidence: In its report on *EC – Hormones (US)*, the AB explained that there must be a *rational connection* between the (science-based) *risk assessment* and the SPS measure eventually adopted, in the sense that the former must reasonably support the latter (§ 193):

... We believe that Article 5.1, when contextually read as it should be, in conjunction with and as informed by Article 2.2 of the *SPS Agreement*, requires that the results of the risk assessment must sufficiently warrant – that is to say, reasonably support – the SPS measure at stake. The requirement that an SPS measure be "based on" a risk assessment is a substantive requirement that there be a rational relationship between the measure and the risk assessment. (*italics in the original*).⁴⁰

Crucial to the understanding of this obligation is the prior understanding of the terms *risk* and *science*. Whereas some progress has been made in case-law regarding the former, little if any progress has been made with respect to the latter. Scientific evidence will need to point to a *risk*. In *EC–Hormones (US)* the AB made two important clarifications regarding the definition of risk. *First*, it explained that the risk must be *identifiable*, as opposed to a mere hypothetical possibility (§ 186):

... In one part of its Reports, the Panel opposes a requirement of an “identifiable risk” to the uncertainty that theoretically always remains since science can *never* provide *absolute* certainty that a given substance will not *ever* have adverse health effects. We

⁴⁰ This view has been repeatedly confirmed in case-law. The AB, for example, in its report on *Japan – Agricultural Products II* held that, as *per* Art 5.2 SPS, a legal requirement is imposed on WTO Members to provide a *rational relationship* between the SPS measure enacted, and the available scientific evidence that exists (§ 84). See the excellent analysis in Dunoff (1999) and (2005) on this score.

agree with the Panel that this theoretical uncertainty is not the kind of risk which, under Article 5.1, is to be assessed. (emphasis in the original).⁴¹

Second, the AB held the view that the risk envisaged in the SPS Agreement is not just a *laboratory* risk but a *real life* risk that takes into account behavioural factors (§ 187):

... It is essential to bear in mind that the risk that is to be evaluated in a risk assessment under Article 5.1 is not only risk ascertainable in a science laboratory operating under strictly controlled conditions, but also risk in human societies as they actually exist, in other words, the actual potential for adverse effects on human health in the real world where people live and work and die.⁴²

In this vein, the panel in its report on *Japan—Apples (Art 21.5—US)*, dismissed the relevance of two studies presented to it, because they did not correspond to natural conditions (§§ 8.65 and 8.140ff). It is difficult to define what *science* is, as a matter of WTO law. In *EC—Hormones (US)*, the AB held the view that the *scientific evidence* that should be evaluated in the *risk assessment*, need not be understood as a requirement to base SPS measures solely on the prevailing opinion in the relevant scientific field. In its view, SPS measures based on minority scientific opinions could very well be deemed to be WTO consistent (§ 194). In *US – Suspended Concession*, the AB summarily suggested that evidence will be considered scientific if it respects the methodological

⁴¹ This statement is hardly supported in scientific discourse: when reference is made to *risk assessment*, one usually knows the *distribution* of probabilities that the risk might occur; there is, thus, *certainty* as to the probability that a risk might occur say 30% of the time a certain action takes place. Societies wanting to take measures when there is *uncertainty* as to whether a risk might occur, are not *risk-averse*, but *ambiguity-averse* societies. The two concepts are related but are not identical. Ambiguity-aversion is probably what is captured by the precautionary principle, which we discuss *infra*. On this issue, see Gollier *et al.* (2000), and also Sunstein (2002).

⁴² The panel in its report on *Japan—Apples (Art 21.5—US)* dismissed the relevance of two studies, because they did not correspond to natural conditions, see §§ 8.65 and 8.140ff.

requirements of the scientific field where it belongs. Beyond this statement, there is nothing much in WTO case-law so far.⁴³

The term risk assessment is defined in Annex A § 4 to the SPS in the following terms:

Risk assessment - The evaluation of the likelihood of entry, establishment or spread of a pest or disease within the territory of an importing Member according to the sanitary or phytosanitary measures which might be applied, and of the associated potential biological and economic consequences; or the evaluation of the potential for adverse effects on human or animal health arising from the presence of additives, contaminants, toxins or disease-causing organisms in food, beverages or feedstuffs. (italics in the original).

There are, thus, two kinds of *risk assessment*: all risks arising from the presence of *additives, contaminants, toxins or disease-causing organisms* in food, beverages or feedstuffs, must be assessed and their potential effects on human or animal life evaluated (*risk assessment I*); on the other hand, as far as *pests or diseases* are concerned, the SPS Agreement provides for assessment of the likelihood of a pest or disease entering, establishing and spreading and the associated potential biological and economic consequences (*risk assessment II*). Whereas it is the potential effects that must be assessed in risk assessment I, it is the likelihood of a pest entering a particular market that must be assessed in risk assessment II. There are different evidentiary standards associated with the two terms (potential, likelihood), and thus, with the two types of risk assessment. There is an element of commonality as well. The AB provided, in its report on *Australia – Salmon*, its understanding of the duty to perform risk assessment in the following terms (§ 121):

⁴³ Concurring with this opinion, Trebilcock, and Soloway (2001). In other regimes, the discussion has been more forthcoming, see for example the *Daubert* jurisprudence of the *US Supreme Court*.

... a risk assessment within the meaning of Article 5.1 must:

- (1) *identify* the diseases whose entry, establishment or spread a Member wants to prevent within its territory, as well as the potential biological and economic consequences associated with the entry, establishment or spread of these diseases;
- (2) *evaluate the likelihood* of entry, establishment or spread of these diseases, as well as the associated potential biological and economic consequences; and
- (3) evaluate the likelihood of entry, establishment or spread of these diseases *according to the SPS measures which might be applied*. (emphasis in the original).

In *EC – Hormones (US)*, the AB dissociated the two types of risk assessment. In this case, the EC had banned the sale of (domestic and imported) hormone-treated beef. The US protested against the ban, arguing that there was no scientific basis for the ban. The EC claimed that its measures were indeed backed by scientific evidence, and the issue in dispute was whether the EC had properly conducted a risk assessment. In resolving this issue, the AB had to, *inter alia*, first articulate its understanding of the term *likelihood* and *potential*, and subsequently explain the differences in the evidentiary standards under consideration (§§ 123 – 124). The AB determined that *likelihood* was a more demanding standard than *potential* (§§ 183 – 184):

Interpreting [paragraph 4 of Annex A of the *SPS Agreement*], the Panel elaborates risk assessment as a two-step process that "should (i) *identify* the *adverse effects* on human health (if any) arising from the presence of the hormones at issue when used as growth promoters *in meat* ..., and (ii) if any such adverse effects exist, *evaluate* the *potential* or probability of occurrence of such effects".

... Although the utility of a two-step analysis may be debated, it does not appear to us to be substantially wrong. What needs to be pointed out at this stage is that the Panel's use of "probability" as an alternative term for "potential" creates a significant concern. The ordinary meaning of "potential" relates to "possibility" and is different from the ordinary meaning of "probability". "Probability" implies a higher degree or a threshold of potentiality or possibility. It thus appears that here the Panel introduces a quantitative dimension to the notion of risk. (emphasis in the original).

Consequently, the standard with respect to *risk assessment II* (pests, diseases etc.) is more demanding on the regulating WTO Member.

In *Japan—Apples*, the issue was whether the SPS prejudices the methodology that should be used in the context of *risk assessment*. The AB found that the agreement does not impose a particular methodology to this effect (§ 204).⁴⁴ In the same report, the AB, confirming prior case-law [*EC—Hormones (US)*], held that the obligation to base measures on *risk assessment* entails that, the WTO Member wishing to enact an SPS measure, cannot carry out a *risk assessment* in a manner that precludes phyto-sanitary measures, other than the one already in place, to be considered. The AB found (§ 209) that Japan violated its obligations under the SPS, conducting *risk assessment* justifying the measure it had in place, without, however, inquiring into the possibility of other, potentially applicable, measures. In this regard, the AB concluded that the SPS does not request that a particular methodology be applied; it does, nonetheless, require that the chosen methodology be specific to (in close connection with) the factual situation investigated. The AB explained in its report on *EC—Hormones (US)* that a WTO Member can base its measures on *risk assessment* performed either by another WTO Member, or by an international organization (§ 190). In the same report, the AB reversed a finding by the panel to the effect that Arts. 2.2 and 5.1 SPS impose a *minimum procedural requirement*, in the sense that a WTO Member adopting an SPS measure must provide evidence that it did base its measure on scientific evidence. In the case at hand, the panel found no evidence in the body of the EC regulation (reflecting the SPS measure), or in its preamble, that the EC had indeed based its

⁴⁴ However, depending on the interpretation of Art 5.1 SPS, one could legitimately hold the view that the SPS Agreement does impose a certain methodology, that is, the methodology privileged by the *relevant international organizations*. The AB seems to suggest that *risk assessment techniques* and *methodology* used are two distinct issues. There is not much support for this view, however, in scientific discourse.

measure on science and, consequently, held that it had violated its obligations under the SPS. The AB disagreed (§§ 188–90).⁴⁵ In its view, no such obligation can be discerned from the SPS.

As things stand, WTO Members must, pursuant to § 1 of Annex B to the SPS, ensure:

... that all sanitary and phytosanitary regulations which have been adopted are published promptly in such a manner as to enable interested Members to become acquainted with them.

§ 3 of the same Annex further requires from WTO Members to introduce *enquiry points* whereby interested parties can request (and obtain) responses to reasonable queries that they might have. These provisions guarantee the transparency of SPS measures and, thus, there is no need, in the AB's view, to also require that SPS measures reflect that they have been based on scientific evidence.

Through *risk assessment*, WTO members aim at determining the probability that a certain risk materializes. Assuming existence of risk,⁴⁶ it is for WTO Members, depending on their risk aversion, to decide whether to intervene or not. Throughout the GATT years, and until *Japan—Apples*, it was thought that a WTO adjudicating

⁴⁵ It is true that a textual reading of the provisions does not impose such a requirement, however, from an evidentiary perspective it is almost impossible for uninformed parties to discern the basis of an SPS measure unless some evidence is provided. In fact, pursuant to § 1 of Annex B, WTO members must ensure, '... that all sanitary and phytosanitary regulations which have been adopted are published promptly in such a manner as to enable interested members to become acquainted with them'. Annex B, § 3 further requires members to introduce *enquiry points* whereby interested parties can request (and obtain) responses to reasonable queries that they might have. All the panel did was to read in context (since transparency is provided for in the SPS Agreement) the articles concerning evidence that there is scientific basis for the *risk assessment* performed. Following the AB's ruling the door to *ex post facto* rationalizations is not shut.

⁴⁶ There is of course, always a certain degree of *uncertainty* surrounding such experiments, due, *inter alia*, to the ever evolving nature of science.

body could not prejudge the level of risk aversion that a given society unilaterally sets. If at all, what was justiciable was not the *ends* sought, but the *means* serving *ends*. In the WTO-era, the AB reaffirmed this point in the most unambiguous terms in *EC—Hormones (US)* (§ 186):

To the extent that the Panel purported to require a risk assessment to establish a minimum magnitude of risk, we must note that imposition of such a quantitative requirement finds no basis in the SPS Agreement. A panel is authorized only to determine whether a given SPS measure is ‘based on’ risk assessment.

Note that, to reach this opinion, the AB dissociated the notion of risk assessment from that of *risk management*. The latter term is used in many jurisdictions to denote the level of risk that a given society is prepared to live with. That is, risk management naturally follows *risk assessment*: assuming knowledge as to the distribution or probabilities that an event might occur, any given society, depending on its risk aversion, will define the level of protection as it deems appropriate.⁴⁷ Following this logic, the panel in *EC - Hormones (US)* accepted the distinction between *risk assessment* and *risk management*, holding that it can pronounce on the former but not on the latter. The AB however, on formal grounds (lack of such a distinction in the SPS), dismissed its relevance altogether (§ 181). A few paragraphs further down in the same report, the AB asserted, as we saw *supra*, that there is no minimum magnitude of risk below which no regulatory intervention is possible (§ 186), effectively thus accepting the notion of risk management.

⁴⁷ See the very comprehensive analysis on risk aversion in Sunstein (2002).

Then came *Japan—Apples*.⁴⁸ Japan imposed a series of measures to ban trade of apples originating in the US, fearing that some of them might suffer from *fire blight*. *Fire blight* affects apples, and not human life. There was no evidence that apples infected with *fire blight* had been exported to Japan, although there was evidence of a shipment of infected apples to the separate customs territory of Taiwan, Penghu, Kinmen, and Matsu.⁴⁹ However, the apples shipped to Taiwan, Penghu, Kinmen, and Matsu were not infected with *fire blight*, but rather from another disease (*codling moth*). Japan claimed that it possessed sufficient scientific evidence that *risk* existed. The record shows that apples infected with *fire blight* had been exported to New Zealand in the early twentieth century, to the United Kingdom in the 1950s, and to Egypt a little later. Scientific evidence showed (with a considerable degree of confidence) that the disease had been transmitted because of the nature of the trade involved (trade in root stocks, that is, in *apple trees* and not in *apples*). The trade involved in *Japan—Apples* dispute concerned apples and not apple trees.

The expertise provided to the panel suggested that the risk of completing the pathway (and thus, transmitting the disease) was *negligible*. Note that to reach this conclusion the panel rejected the argument of the US that it was required to confine its review only to mature symptom-less apples, since only such apples were being exported to Japan; the panel held that the risk (by human error) that immature symptom-full apples be exported to Japan should also be taken into account. In the experts' view, however, even if this were the case the risk was still *negligible*, because the disease could only be transmitted through birds flying from infected apples to uninfected apple trees. The panel, relying on the guidance of the experts on this point, explicitly

⁴⁸ Neven and Weiler (2007) have provided an excellent, critical account of this dispute.

⁴⁹ See § 160 of the AB report and footnote 289.

accepted that there was *negligible* risk. It still went ahead, nevertheless, and found that there was no *rational or objective relationship* between the measure and the relevant scientific evidence. In light of the *negligible risk* identified on the basis of the scientific evidence *and* the nature of elements composing the measure, the panel concluded that the Japanese measure was clearly disproportionate to the risk (§ 8.198 and 8.199 of the panel report).

The challenged measure, that was found to be disproportionate, consisted in nine prohibitions or requirements (§§ 8.5ff. of the panel report). Among these measures was the prohibition of importing apples from US states other than Oregon and Washington, certification-requirements, and the prohibition of exports, if *fire blight* had been detected in a neighbouring geographical area. According to the Japanese regulator, in the absence of a total embargo on imports, the risk that the disease would spread was very much alive. Note that the panel did not reach its finding in this respect based on Art. 5.6 SPS (which reflects the *necessity*-requirement). It decided to exercise judicial economy in this respect. It held that the measure was inconsistent with Art. 2.2 SPS, since there was no scientific evidence to support it, although it accepted that risk albeit negligible did exist.

The AB confirmed once again that a *risk assessment* must be in *rational or objective relationship* with the SPS measure it led to, and that no such relationship exists in the absence of scientific evidence (§ 164). It then endorsed the idea that in light of the *negligible risk*, the challenged measure was disproportionate (§§ 160 and 163ff): the AB held that the challenged measure was disproportionate as it was maintained without any scientific evidence supporting it. It bears repetition that the AB reached the conclusion that Japan was in violation of Art. 2.2 SPS.

We note here (and will come back to this point *infra*) that Japan also invoked the *precautionary principle*, and claimed that its measure was anyway consistent with Art. 5.7 SPS. The AB, nonetheless, held that a WTO Member cannot have recourse to precautionary measures in case scientific expertise, to the effect that a negligible risk exists, is available (§ 188).

Consistency: Art. 5.5 SPS requires consistency in the *appropriate level of protection across situations*.⁵⁰ WTO case-law [AB report on *EC – Hormones (US)*, in §§ 212 and 238] has established that this provision should be read together with Art. 2.3 SPS, which, as we saw *supra*, requires non-discriminatory behaviour *across WTO Members*. In *Australia – Salmon*, the AB went one step further and explained that a violation of Art. 5.5 SPS *ipso facto* entails a violation of Art. 2.3, which reflects the non discrimination requirement (§ 252):

...a finding of violation of Article 5.5 will necessarily imply a violation of Article 2.3, first sentence, or Article 2.3, second sentence. Discrimination "between Members, including their own territory and that of others Members" within the meaning of Article 2.3, first sentence, can be established by following the complex and indirect route worked out and elaborated by Article 5.5. However, it is clear that this route is not the only route leading to a finding that an SPS measure constitutes arbitrary or unjustifiable discrimination according to Article 2.3, first sentence. Arbitrary or unjustifiable discrimination in the sense of Article 2.3, first sentence, can be found to exist without any examination under Article 5.5.

Hence, the two obligations, when read together, require *consistency across situations across WTO Members*.⁵¹ Whereas the latter part (across WTO Members) seems easier to

⁵⁰ For an economic analysis of Art. 5.5 SPS, see Pienaar (2005).

⁵¹ Note, however, that WTO Members do not need to, by virtue of Art. 6 SPS, apply their SPS measures against all exports when a pest or a disease has surfaced which necessitated the adoption of the SPS

grasp, the former part (across situations) is far from being a walk in the park for the adjudicator. A benchmark is required in order to establish comparability across situations. Case-law has contributed some clarifications on this score.

The AB held, in *EC – Hormones (US)*, that, for a violation of Art. 5.5 SPS to be established, a complaining party must satisfy a *three prong-test* (§§ 214 – 215):

Close inspection of Article 5.5 indicates that a complaint of violation of this Article must show the presence of three distinct elements. The first element is that the Member imposing the measure complained of has adopted its own appropriate levels of sanitary protection against risks to human life or health in several different situations. The second element to be shown is that those *levels of protection* exhibit arbitrary or unjustifiable differences ("distinctions" in the language of Article 5.5) in their treatment of different situations. The last element requires that the arbitrary or unjustifiable differences result in discrimination or a disguised restriction of international trade. We understand the last element to be referring to the *measure* embodying or implementing a particular level of protection as resulting, in its application, in discrimination or a disguised restriction on international trade.

We consider the above three elements of Article 5.5 to be cumulative in nature; all of them must be demonstrated to be present if violation of Article 5.5 is to be found. In particular, both the second and third elements must be found. The second element alone would not suffice. The third element must also be demonstrably present: the implementing measure must be shown to be applied in such a manner as to result in discrimination or a disguised restriction on international trade. The presence of the second element – the arbitrary or unjustifiable character of differences in *levels of protection* considered by a Member as appropriate in differing situations – may in practical effect operate as a "warning" signal that the implementing *measure* in its application *might* be a discriminatory measure or *might* be a restriction on international trade disguised as an SPS measure for the protection of human life or health. Nevertheless, the measure itself needs to be examined and appraised and, in the context of the differing levels of protection, shown to result in discrimination or a disguised restriction on international trade. (emphasis in the original).

measure. Pest- and disease-free areas can legitimately be excluded. The terms pest- or disease-free area and area of low pest or disease are further detailed in §§ 6 and 7 of Annex A to the SPS Agreement.

To perform this test, the complaining party needs to first establish *comparability* across situations. We quote from § 217 of the AB report on *EC – Hormones (US)*:

... The situations exhibiting differing levels of protection cannot, of course, be compared unless they are comparable, that is, unless they present some common element or elements sufficient to render them comparable. If the situations proposed to be examined are *totally* different from one another, they would not be rationally comparable and the differences in levels of protection cannot be examined for arbitrariness. (emphasis in the original).⁵²

Then, AB explained, in the same report, that the letter and the spirit of Art. 5.5 SPS do not require from WTO Members to guarantee absolute uniformity across the various *appropriate levels of protection* that they pursue: Art. 5.5 SPS should be properly understood as a legal prohibition of *arbitrary or unjustifiable discrimination* (§ 213):

The objective of Article 5.5 is formulated as the "achieving [of] consistency in the application of the concept of appropriate level of sanitary or phytosanitary protection". Clearly, the desired consistency is defined as a goal to be achieved in the future. ...Thus, we agree with the Panel's view that the statement of that goal does not establish a *legal obligation* of consistency of appropriate levels of protection. We think, too, that the goal set is not absolute or perfect consistency, since governments establish their appropriate levels of protection frequently on an *ad hoc* basis and over time, as different risks present themselves at different times. It is only arbitrary or unjustifiable inconsistencies that are to be avoided. (italics and emphasis in the original).

Subsequently, in *Australia – Salmon*, the AB offered a benchmark for comparability (§§ 146 and 152):

... the Panel was correct in stating that situations can be compared under Article 5.5 if these situations involve *either* a risk of entry, establishment or spread of the same or a similar disease, *or* a risk of the same or similar "associated potential biological and economic consequences".

⁵² Applying this test, the AB held, in this case, that the European Community had violated Art. 5.5 SPS by banning sales of hormone-treated beef, and not banning sales of hormone-treated pork.

...

... we believe that for situations to be comparable under Article 5.5, it is sufficient for these situations to have in common a risk of entry, establishment or spread of *one* disease of concern. There is no need for these situations to have in common a risk of entry, establishment or spread of *all* diseases of concern. (emphasis in the original).

Therefore, similarity of the *disease* or of the *associated risk* provides comparability. Following this line of reasoning, the AB introduced in *Australia – Salmon* the term *warning signals*, which refers to elements or properties of particular SPS measures that could be relevant in establishing a violation of Art. 5.5 SPS. The quantity and quality of such *warning signals* will ultimately prove to be the decisive factor in determining whether Art. 5.5 SPS has been violated: substantial difference in the level of protection (§ 164), and/or violation of Art. 5.1 SPS (§ 166), could serve as *warning signals*:

... in this case the degree of difference in the levels of protection (prohibition *versus* tolerance) is indeed, as the Panel stated, "rather substantial". We, therefore, consider it legitimate to treat this difference as a separate warning signal.

...

... We note that a finding that an SPS measure is not based on an assessment of the risks to human, animal or plant life or health – either because there was no risk assessment at all or because there is an insufficient risk assessment – is a strong indication that this measure is not really concerned with the protection of human, animal or plant life or health but is instead a trade-restrictive measure taken in the guise of an SPS measure, i.e., a "disguised restriction on international trade". We, therefore, consider that the finding of inconsistency with Article 5.1 is an appropriate warning signal for a "disguised restriction on international trade".

Evidence of this attitude can also be traced in § 240 of the AB's report on *EC – Hormones (US)*:

In our view, the degree of difference, or the extent of the discrepancy, in the levels of protection, is only one kind of factor which, along with others, may cumulatively lead to the conclusion that discrimination or a disguised restriction on international trade in fact

results from the application of a measure or measures embodying one or more of those different levels of protection. ... It is well to bear in mind that, after all, the difference in levels of protection that is characterizable as arbitrary or unjustifiable is only an element of (indirect) proof that a Member may actually be applying an SPS measure in a manner that discriminates between Members or constitutes a disguised restriction on international trade, prohibited by the basic obligations set out in Article 2.3 of the *SPS Agreement*. (italics in the original).

The WTO Members adopted on 22 June 2000⁵³ *Guidelines*, which provide some clarification on the scope of the obligation assumed under Art 5.5 of the SPS: WTO Members must, in order to observe their *consistency*-obligation, indicate the level of protection which they consider appropriate, and also indicate if there is a difference in the level of protection under consideration and levels already determined by the regulating WTO Member in different situations; WTO Members must further compare the level of protection now being sought with that already considered in previous situations which contain *sufficient common elements* so as to render the two situations *comparable*.⁵⁴ It follows that the *Guidelines* attach substantial importance on the comparability *across transactions*.

Measures imposed on precaution: WTO Members can, in accordance with Art. 5.7 SPS, adopt provisionally, even in the absence of scientific backing, SPS measures on the basis of available information. In this case, however, they are under an obligation to collect information that will enable them to perform a *risk assessment* within a reasonable period of time. Although Art. 5.7 SPS does not explicitly refer to the *precautionary principle*, WTO adjudicating bodies have held that this provision reflects

⁵³ See WTO Doc G/SPS/15 of 18 July 2000.

⁵⁴ See p 3 of the *Guidelines*, *op cit*, under A4. The italicized terms appear as such in the body of the *Guidelines*.

indeed the *precautionary principle*. In *EC—Hormones (US)*, the AB summarized the relevance of the *precautionary principle* in the WTO, in the following terms (§§ 123–5):

- (a) the *precautionary principle* is reflected in Art. 5.7 SPS, but is also reflected in other SPS provisions such as the preamble and Art. 3.3 SPS. Hence, the *precautionary principle* is not *exhaustively* reflected in Art. 5.7 SPS;
- (b) the status of *precautionary principle* under customary international law is unclear;⁵⁵
- (c) WTO panels should keep *precautionary principle* in mind when interpreting the SPS; but
- (d) the *precautionary principle* does not override the explicit wording of specific SPS provisions.

The relationship between Art. 5.7 SPS (*precautionary principle*), and Art. 2.2 SPS (the obligation to base measures on scientific evidence), was addressed by the AB in its report on *Japan—Agricultural Products II*⁵⁶ in the following terms (§ 80):

... Article 5.7 allows Members to adopt provisional SPS measures “[I]n cases where relevant scientific evidence is insufficient” and certain other requirements are fulfilled. Article 5.7 operates as a *qualified* exemption from the obligation under Article 2.2 not to maintain SPS measures without sufficient scientific evidence. An overly broad and flexible interpretation of that obligation would render Article 5.7 meaningless. (emphasis in the original).

⁵⁵ In *EC—Approval and Marketing of Biotech Products*, the panel, when dealing with the EC régime for approval of GMOs even cited the International Tribunal of the Law of the Sea (ITLOS) as support for this finding that the precautionary principle had an uncertain status under customary international law (§ 7.89).

⁵⁶ See Dunoff (2005) for an informative account of this dispute.

The AB, hence, held that Art. 5.7 SPS is an exception from the obligation to use scientific evidence when enacting SPS measures. In *Japan—Apples*, the AB went one step further: in its view, if science is well settled on an issue, recourse to *precaution* is unwarranted. In a sense, the AB sees a *firewall* between scientific evidence and precaution (§ 184):

The application of Article 5.7 is triggered not by the existence of scientific uncertainty, but rather by the insufficiency of scientific evidence. The text of Article 5.7 is clear: it refers to ‘cases where relevant scientific evidence is insufficient’, not to ‘scientific uncertainty’. The two concepts are not interchangeable. Therefore, we are unable to endorse Japan’s approach of interpreting Article 5.7 through the prism of ‘scientific uncertainty’.

It follows, that, in the eyes of the AB, a measure can either be based on science or on Art. 5.7 SPS, and that recourse to the latter is appropriate in cases of *scientific insufficiency*, but not of *scientific uncertainty*.⁵⁷ Case-law did not explain the differences between *scientific insufficiency* and *scientific uncertainty* any further. In *US – Suspended Concession*, however, the AB seems to take distance from this approach summarily accepting that recourse to precaution is possible when a WTO Member doubts the validity of scientific expertise.

WTO case-law has also dealt with the mechanics of the compliance with Art. 5.7 SPS. The AB, in its report on *Japan—Agricultural Products II* established a *four-prong test* that must be met for a measure to be deemed consistent with Art. 5.7 SPS. In this case, Japan invoked the precautionary principle in order to justify a measure which aimed

⁵⁷ Note however, that the panel, in its report on *Canada – Suspended Concession*, casts doubt to the integrity of this approach. In §§ 7.597 of its report, the panel takes the view that there is nothing wrong with basing on precaution a measure which had previously been based on scientific evidence, if new information has reduced the legitimacy of the previous scientific paradigm.

at the protection of a series of commodities. As enunciated by the AB, all four elements of the test must be *cumulatively* met (§ 89):

Article 5.7 of the *SPS Agreement* sets out four requirements which must be met in order to adopt and maintain a provisional SPS measure. Pursuant to the first sentence of Article 5.7, a Member may provisionally adopt an SPS measure if this measure is:

- (1) imposed in respect of a situation where “relevant scientific information is insufficient”; and
- (2) adopted “on the basis of available pertinent information”.

Pursuant to the second sentence of Article 5.7, such a provisional measure may not be maintained unless the Member which adopted the measure:

- (1) “seek[s] to obtain the additional information necessary for a more objective assessment of risk”; and
- (2) “review[s] the ... measure accordingly within a reasonable period of time.

These four requirements are clearly cumulative in nature and are equally important for the purpose of determining consistency with this provision. Whenever *one* of these four requirements is not met, the measure at issue is inconsistent with Article 5.7. (emphasis in the original).

Case-law has contributed some additional clarifications. The term *reasonable period of time*, for example, was discussed in the AB report on *Japan—Agricultural Products II*. There, the AB held that this term will have to be interpreted on a case by case basis. In this particular case, 4 years of inaction by Japan subsequent to the adoption of a measure under Art. 5.7 SPS was deemed to be unreasonable (§ 93). In the same dispute, the AB held that the *additional information* sought during the reasonable period of time must be germane in conducting risk assessment (§ 92):

...we note that the first part of the second sentence stipulates that the Member adopting a provisional SPS measure “shall seek to obtain the additional information necessary for a more objective assessment of risk”. Neither Article 5.7 nor any other provision of the *SPS Agreement* sets out explicit prerequisites regarding the additional

information to be collected or a specific collection procedure. Furthermore, Article 5.7 does not specify what actual results must be achieved; the obligation is to "seek to obtain" additional information. However, Article 5.7 states that the additional information is to be sought in order to allow the Member to conduct "a more objective assessment of risk". Therefore, the information sought must be germane to conducting such a risk assessment, i.e., the evaluation of the likelihood of entry, establishment or spread of, *in casu*, a pest, according to the SPS measures which might be applied. (italics in the original).

Case-law has so far not addressed the question whether precautionary measures must still observe the non-discrimination obligation (Art. 3.2 SPS), the *consistency*-requirement (Art. 5.5 SPS), and the *necessity*-requirement (Art. 5.6 SPS). There are some indications, nonetheless, to the effect that an affirmative response is required.

The text of Art. 5.7 SPS does not absolve WTO Members from the obligation to observe the three obligations. There are thus, textual arguments in favour of the affirmative response. The *travaux préparatoires* unfortunately, do not shed enough light on this issue. Some of the negotiating history of this provision⁵⁸ suggests that it was drafted to deal with *emergency situations*, such as an outbreak of a disease. This is by now water under the bridge: the AB in its report on *EC—Hormones (US)* extended Art. 5.7 SPS to cover precautionary measures which do not *necessarily* have to be taken under *urgency*. Subsequently, the EC circulated a proposal inviting the WTO Membership to think further about the content of the *precautionary principle*:⁵⁹ in its view, measures based on precaution must be proportional to the chosen level of protection, non-discriminatory in their application, and also consistent with past practice (assuming, of course, that comparability across transactions has been

⁵⁸ See, *inter alia*, GATT Docs MTN.GNG/NG5/WGSP/7 of 20 November 1990, and MTN.GNG/NG5/WGSP/17 of 30 April 1990.

⁵⁹ See WTO Doc G/SPS/GEN/168 of 14 March 2000.

established).⁶⁰ To appreciate the EC proposal, it is probably warranted to see how the EC institutions understand precaution: one of the leading cases in EC-law in this field is *Commission v. Netherlands*,⁶¹ where the court outlawed a Dutch measure banning marketing of foodstuffs to which nutrients had been added. The Court made it first clear that the *proportionality*-requirement (adopt the least restrictive for trade measure) should be observed in cases where the *precautionary principle* has been invoked as well (§ 46). It provided its understanding that the *precautionary principle* should not be dissociated completely from scientific evidence. The court understands precaution as one point in a line (continuum) that might lead to scientific proof:

A proper application of the precautionary principle requires, in the first place, the identification of the potentially negative consequences for health of the proposed addition of nutrients, and, secondly, a comprehensive assessment of the risk for health based on the most reliable scientific data available and the most recent results of international research. (*Commission v Denmark*, § 51).

Where it proves to be impossible to determine with certainty the existence or extent of the alleged risk because of the insufficiency, inconclusiveness or imprecision of the results of studies conducted, but the likelihood of real harm to public health persists should the risk materialise, the precautionary principle justifies the adoption of restrictive measures. (*Commission v Denmark*, §§ 52 and 53).

It should come thus as no surprise that proportionality must be respected even when recourse to precaution has been made. It follows that *some* state practice, as well, supports the view that the SPS measures based on precaution should respect Arts. 2.3, 5.5, 5.6 SPS as well.

⁶⁰ See also the European Council Resolution on the Precautionary Principle, WTO Doc G/SPS/GEN/225 of 2 February 2001.

⁶¹ C-41/02 *Commission of the European Communities v Kingdom of the Netherlands* [2004] ECR I-11375.

4.3.4 International Standards

Peru was requested by the AB to prove that the EC could have attended its objective by sticking to the IS on the denomination of sardines, since this IS was an appropriate and effective means in this endeavour (AB report, at § 287). More specifically, the AB requested that (AB report, at § 290).

We note that the Panel concluded that "Peru has adduced sufficient evidence and legal arguments to demonstrate that Codex Stan 94 is not ineffective or inappropriate to fulfil the legitimate objectives pursued by the EC Regulation." We have examined the analysis which led the Panel to this conclusion. We note, in particular, that the Panel made the factual finding that "it has not been established that consumers in most member States of the European Communities have always associated the common name 'sardines' exclusively with *Sardina pilchardus*". We also note that the Panel gave consideration to the contentions of Peru that, under Codex Stan 94, fish from the species *Sardinops sagax* bear a denomination that is distinct from that of *Sardina pilchardus*, and that "the very purpose of the labelling regulations set out in Codex Stan 94 for sardines of species other than *Sardina pilchardus* is to ensure market transparency". We agree with the analysis made by the Panel. Accordingly, we see no reason to interfere with the Panel's finding that Peru has adduced sufficient evidence and legal arguments to demonstrate that Codex Stan 94 meets the legal requirements of effectiveness and appropriateness set out in Article 2.4 of the *TBT Agreement*. (italics in the original).

It follows that Peru was not requested to prove anything beyond what it had already proved at the panel-stage. Note however, that, as briefly discussed above, the panel had opted for a different allocation of the burden of production. So the AB contented itself to requesting from Peru what it had already proved at the panel stage. It did not shift the burden of proof to the EC following Peru's demonstration. Surprisingly, in the absence of such a shift, and the different now allocation of the burden of production notwithstanding, the AB still found in favour of Peru.

This solution was inspired by the solution in the SPS-context, where the AB, first in its report on *EC – Hormones (US)* held that it is up to the complainant to establish that the

regulating Member could have attained its objectives by sticking to the international standard at hand and that, consequently, no need for deviation was warranted (§§ 104 and 172):

... It appears to us that the Panel has misconceived the relationship between Articles 3.1, 3.2 and 3.3, a relationship discussed below, which is qualitatively different from the relationship between, for instance, Articles I or II and Article XX of the GATT 1994. ... Article 3.3 recognizes the autonomous right of a Member to establish such higher level of protection, provided that that Member complies with certain requirements in promulgating SPS measures to achieve that level. ... The general rule in a dispute settlement proceeding requiring a complaining party to establish a *prima facie* case of inconsistency with a provision of the *SPS Agreement* before the burden of showing consistency with that provision is taken on by the defending party, is *not* avoided by simply describing that same provision as an "exception". In much the same way, merely characterizing a treaty provision as an "exception" does not by itself justify a "stricter" or "narrower" interpretation of that provision than would be warranted by examination of the ordinary meaning of the actual treaty words, viewed in context and in the light of the treaty's object and purpose, or, in other words, by applying the normal rules of treaty interpretation.

...

Under Article 3.3 of the *SPS Agreement*, a Member may decide to set for itself a level of protection different from that implicit in the international standard, and to implement or embody that level of protection in a measure not "based on" the international standard. The Member's appropriate level of protection may be higher than that implied in the international standard. The right of a Member to determine its own appropriate level of sanitary protection is an important right. This is made clear in the sixth preambular paragraph of the *SPS Agreement*: ...the right of a Member to establish its own level of sanitary protection under Article 3.3 of the *SPS Agreement* is an autonomous right and *not* an "exception" from a "general obligation" under Article 3.1. (*italics and emphasis in the original*).

4.4 Concluding Remarks on TBT/SPS Case-Law

Case-law in this area exhibits problems with respect to both the allocation of burden of production as well as of persuasion. We limit the analysis to a few key disputes which are an illustration of the overall attitude.

4.4.1 EC – Hormones

The dispute in a nutshell: the EC banned sales of hormone treated-beef in its market. The US protested that the ban was inconsistent with various SPS-requirements: in its view, since the EC had not based its ban on scientific risk assessment and had not invoked the precautionary principle either, it was running afoul its obligations.

Evidence by the complainant: The complainant pointed to the existence of an IS; as argued above, the AB decided that the complainant still carried the burden of production, the existence of an IS notwithstanding. The complainant however, did not carry a heavy burden of persuasion since all it had to show was that the EC did not base its findings on scientific evidence; it did not add anything to the evidence it had already submitted to the panel. The evidence submitted with respect to hormone treated-chicken is quite telling: the AB found in favour of the complainant because the EC banned sales of hormone treated-beef but not –chicken, without clear demonstration that the two products are equally dangerous to human health.⁶²

Counter-evidence by the defendant: the EC did not produce any meaningful counter-evidence and, as alluded to *supra*, did not invoke the precautionary principle either.

⁶² See the critical remarks by Horn and Mavroidis (2003) on this score.

The evaluation by the AB: The AB found in favour of the US because of the absence of risk assessment to justify the sales ban; it also found that the EC had violated Art. 5.5 SPS by treating hormone treated-beef and –chicken differently.

Our evaluation: It is difficult to argue with the AB regarding the absence of risk assessment. For the reasons explained above, both its findings regarding the allocation of burden of production in presence of an IS, as well as the burden of persuasion regarding the consistency-requirement are not sound.

4.4.2 EC – Sardines

This is the mirror to *EC – Hormones*. The findings are symmetric and so is the allocation of the burden of production and persuasion.

4.4.3 Japan - Apples

The dispute in a nutshell: Japan bans imports of US apples because they have been hit by fire blight.

Evidence by the complainant: the US provided evidence pointing to the absence of fire blight in US exports.

Counter-evidence by the defendant: Japan provided scientific evidence showing the risk emanating from this disease, as well as evidence regarding shipments of apples to other WTO Members that had been contaminated by fire blight.

The evaluation by the AB: the AB accepted the soundness of the scientific evidence submitted by Japan, but still found against it because the regulatory intervention was illegitimate in its view in light of the negligibility of the risk involved.

Our evaluation: this is a very odd outcome. The AB case-law is inconsistent across cases: in *EC – Hormones* it accepted that WTO Members can legitimately pursue zero risk policies, whereas here it finds that in light of the negligibility of the risk involved no regulatory intervention was warranted. Crucially, the AB cannot itself decide on the level of risk aversion that WTO Members must exhibit: such attitude goes directly against its own pronouncements that in the context of similar disputes it will question the means employed but not the ends sought.

5 Conclusions

In this paper we focused on the allocation of burden of proof in environmental disputes. Our analysis suggests that WTO adjudicating bodies have consistently assigned the burden of production of proof to the complainant: this attitude has not changed not even in presence of IS where one might intuitively have thought that the allocation of burden of production would be different. As to the burden of persuasion, our analysis suggests that *de facto*, the complaining party does not need to show evidence of (adverse) trade effects or protectionist intent; *de jure*, the complaining party might need to show evidence of protectionist intent in cases where a fiscal instrument has been chosen and the tax differential between two DCS products is more than *de minimis* but less than substantial. Such has never been the case so far.

This allocation of burden of proof is not unproblematic. Our analysis above also shows that:

- (a) WTO adjudicating bodies have committed errors regarding the allocation of burden of persuasion in GATT cases;
- (b) They have committed errors regarding the allocation of both the burden of persuasion as well as the burden of production in TBT/SPS cases.

The absence of explanation regarding the (mis-)allocation of the burden of production makes it difficult to understand the reasons behind the commission of such errors: as things stand it is difficult to say whether the allocation of burden of production in *EC – Sardines* is due to the disapproval by the AB of the legislative *laissez faire* attitude towards IS, or whether, as Horn and Weiler (2007) have suggested, it is the strengthening of IS that dictated the approach. For reasons having to do with the (continued) incentive to negotiate IS it would make sense to keep their legitimacy intact in the WTO legal order and allocate the burden of production when in presence of IS accordingly. The same result obtains if private information becomes the key criterion for allocating the burden of production.

Nevertheless, there are good reasons to believe that the following factors help explain the errors regarding the allocation of burden of persuasion: a court will allocate the burden of persuasion in light, *inter alia*, of the objectives that a legal canon pursues; it is the response to the question ‘what does this legal discipline aim to achieve?’ that will inform (along with other factors) the allocation of the burden of persuasion. WTO adjudicating bodies must, in other words, have a theory about what features the resolution of the case should have. This is precisely what seems to be missing in the majority of the cases. The problem seems to be that in the eyes of adjudicating bodies, the VCLT is all methodology that is needed. This is obviously wrong. The VCLT can help the judge as to the selection of interpretative elements that it can use; it cannot

help the judge to determine for instance whether selling an asset through an auction exhausts a previously conferred subsidy, to take just an example from case law (in this case from *US – Certain EC Products*). To do this, the judge will need to develop its own understanding of how the outcomes of disputes help members achieve desired purposes. Since the purposes of the agreement largely are economic, recourse to economics is necessary. Absent such expertise it is no surprise that determinations often appear dubious from an economic perspective.⁶³

Another possibility for an adjudicating body to get information about the rationale for a particular provision is to visit the negotiating record. This is hardly ever done. On the contrary, WTO adjudicating bodies routinely repeat that there is no legal compulsion to take into consideration the negotiating record, invoking Art. 32 VCLT to this effect. This may formally be the case, but we believe that the negotiating record can often be informative, and that it should not be completely disregarded in the name of Art. 32 VCLT, since it was not meant to annihilate altogether the value of the negotiating record.⁶⁴

⁶³ Compare the conclusions of various authors that have been contributing papers in the volumes edited by Horn and Mavroidis for the American Law Institute since 2001.

⁶⁴ See for example, the discussions regarding NT as reported in Irwin *et al.* (2008).

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